

**April 8, 2003**

RE:        **A O C, LLC 127-13997-00003**  
TO:        Interested Parties / Applicant  
FROM:     *Paul Dubenetzky*  
            Chief, Permits Branch  
            Office of Air Quality

**Notice of Decision: Approval - Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Lori F. Kaplan  
Commissioner

6015

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-

(317) 232-8603  
(800) 451-6027  
[www.state.in.us/idem](http://www.state.in.us/idem)

## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL

### OFFICE OF AIR QUALITY

**AOC, L.L.C.**  
**2552 Industrial Drive**  
**Valparaiso, Indiana 46383-9510**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F127-13997-00003	
Issued by: <b>Original signed by</b> Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: <b>April 8, 2003</b>  Expiration Date: <b>April 8, 2008</b>



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Natural Gas Fired Boiler Certification

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Quarterly Deviation and Monitoring Report Form

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary polyester and acrylic resin source.

Authorized individual:	Craig Juel
Source Address:	2552 Industrial Drive, Valparaiso, Indiana 46383-9510
Mailing Address:	2552 Industrial Drive, Valparaiso, Indiana 46383-9510
General Source Phone Number:	(219)465-1611
SIC Code:	2821
Source Location Status:	Porter
County Status:	Severe Nonattainment for ozone Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD or Emission Offset Rules

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) natural gas fired/#2 fuel oil fired boiler, constructed in 1977, and rated at twenty-five (25) million British thermal units per hour (600 hp);
- (b) One (1) natural gas fired/ #2 fuel oil fired hot oil heater, constructed in 1973, rated at eighteen (18) million British thermal units per hour;
- (c) One (1) natural gas fired/#2 fuel oil fired boiler, constructed in 1990, rated at twelve and five-tenths (12.5) million British thermal units per hour (300 hp);
- (d) Two (2) reactors, identified as reactor No. 1 and No. 2, constructed in 1973 and 1985, respectively, and with a maximum capacity of eight thousand (8,000) and nine thousand (9,000) gallons, respectively, with VOC emissions controlled by an eight (8) million British thermal units per hour thermal oxidizer, constructed in 1977;
- (e) One (1) process styrene emission control system consisting of two (2) activated carbon units in series with continuous styrene emission monitoring. This process styrene emission control system provides control for items (f), (g), (h), and (i);
- (f) Two (2) thinning tanks, identified as thinning tank No. 1 and No. 2, constructed in 1973 and 1985, respectively, both storing polyester resin, with a maximum capacity of sixteen thousand one hundred (16,100) and seventeen thousand seven hundred (17,700) gallons, respectively, and both with VOC emissions controlled by the process styrene emission control system described in (e);
- (g) Six (6) blend tanks, identified as blend tank No.1, No. 2, No. 3, No. 4, No. 5 and No. 6, constructed in 1973, 1973, 1979, 1996, 1999, and 1999 respectively, all storing polyester resin, with a maximum capacity of six thousand (6,000), fifteen thousand (15,000), fifteen

thousand (15,000), eight hundred (800) gallons, six thousand (6,000) and six thousand (6,000) respectively, controlled by the process styrene emission control system described in (e);

- (h) One (1) styrene flush tank used to hold and capture styrene and used to flush pipes and process vessels between product runs, venting to the process styrene emission control system described in (e);
- (i) One (1) drum off station and vent, constructed in 1985, which transfers finished products to drums and totes for shipment, with a maximum throughput of six thousand fifteen (6,015) tons per year, and with VOC emissions controlled by the process styrene emission control system described in (e);
- (j) Two storage tanks styrene emission control systems consisting of one (1) activated carbon unit each. The storage tanks listed below each vent through one of the systems: storage tanks No. 2, 3 6, 8, and 9 vent through the east styrene emission control system; and storage tanks No. 12, 13, 14, 19, 20, and 21 vent through the west styrene emission control system. The following is a description of each storage tank:
  - (1) One (1) tank storing resin, identified as storage tank 2, constructed in 1973, with a maximum capacity of sixteen thousand (16,000) gallons;
  - (2) Two (2) tanks storing resin, identified as storage tank 3 and 6, both constructed in 1973, each with a maximum capacity of thirty thousand (30,000) gallons;
  - (3) Two (2) tanks storing resin, identified as storage tanks 8 and 9, both constructed in 1975, each with a maximum capacity of one hundred and five thousand (105,000) gallons;
  - (4) Three (3) tanks storing resin, identified as storage tanks 12, 13, and 14, constructed in 1979, 1981, and 1981, respectively, each with a maximum capacity of fifty thousand (50,000) gallons;
  - (5) One (1) tank storing styrene, identified as storage tank 19, constructed in 1995, with a maximum capacity of sixty-nine thousand (69,000) gallons; and
  - (6) Two (2) storage tanks for resin, identified as storage tank 20 and 21, both constructed in 1997, each with a maximum capacity of thirty thousand (30,000) gallons.
- (k) One (1) Development and Testing Pultrusion Unit with styrene monomer resin, with a maximum capacity of one hundred eighty (180) fiberglass parts per hour, using one (1) baghouse and carbon adsorption unit for control, exhausting to two (2) stacks (J-280 and J-281), consisting of the following equipment:
  - (1) Mat and roving creels;
  - (2) Wet out station;
  - (3) Die table;
  - (4) Control section;
  - (5) Puller section;



- (6) Automatic cut-off saw;
  - (7) Offload table;
  - (8) Diaphragm pump;
  - (9) Carbons adsorption; and
  - (10) Cyclone dust collector and HEPA filter.
- (l) One (1) pneumatic conveying system (IPA unloading), constructed in 1991, with a maximum throughput of ten million (10,000,000) pounds per year, and with particulate emissions controlled by a bag filter (isophthalic unloading system);
- (m) One (1) bulk isophthalic acid handling system, constructed in 1983, with a maximum throughput of ten million (10,000,000) pounds per year;
- (n) Ten (10) unloading stations primarily for polyester resin, described as follows, with fugitive VOC and HAP emissions:
- (1) One (1) unloading station, identified as Backpad, constructed in 1990, and relocated/modified in 1999, with a maximum throughput of two million (2,000,000) pounds of glycol per year;
  - (2) One (1) unloading station, identified as Portable pump, constructed in 1983, with a maximum throughput of thirty-three million (33,000,000) pounds per year;
  - (3) One (1) unloading station, identified as Railsiding, constructed in 1978, with a maximum throughput of seventy-three million (73,000,000) pounds of maleic anhydride/dicyclopentadiene per year;
  - (4) One (1) unloading station, identified as Railsiding, constructed in 1997, with a maximum throughput of seventy-three million (73,000,000) pounds of styrene per year;
  - (5) One (1) unloading station, identified as Railsiding, constructed in 1999, with a maximum throughput of seven-three million (73,000,000) pounds of polyester resin per year;
  - (6) One (1) unloading station, identified as Ethylene Glycol/Methyl Propanediol, constructed in 1984, with a maximum throughput of twenty-nine million two hundred thousand (29,200,000) pounds per year;
  - (7) One (1) unloading station, identified as Phthalic Anhydride, constructed in 1987, with a maximum throughput of fourteen million six hundred thousand (14,600,000) pounds per year;
  - (8) One (1) unloading station, identified as Diethylene Glycol/Propylene Glycol, constructed in 1984, with a maximum throughput of twenty-nine million two hundred thousand (29,200,000) pounds per year;
  - (9) One (1) unloading station, identified as 1,3 Butylene Glycol at P4, constructed in 1989 (this station has not been in operation for 3 years); and

- (10) One (1) unloading station, identified as Flammable Unloading of Polyester Resin, constructed in 1984, with a maximum throughput of forty-three million eight hundred thousand (43,800,000) pounds per year;
- (o) Three (3) loading stations for polyester resin, described as follows, with fugitive VOC and HAP emissions:
  - (1) One (1) loading station, identified as Tanker Bays 1 and 2, constructed in 1984, with a maximum throughput of sixty-five million (65,000,000) pounds per year;
  - (2) One (1) loading station, identified as Tanker Bays 3 and 4, constructed in 1984, with a maximum throughput of sixty-five million (65,000,000) pounds per year; and
  - (3) One (1) loading station, identified as Tanker Bays 5 and 6, constructed in 2000, with a maximum throughput of sixty-five million (65,000,000) pounds per year.

**A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]**

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
  - (1) One (1) tank storing phthalic anhydride, identified as storage tank 1, constructed in 1973, with a maximum capacity of sixteen thousand (16,000) gallons;
  - (2) One (1) tank storing maleic anhydride, identified as storage tank 16, constructed in 1986, with a maximum capacity of forty thousand (40,000) gallons;
  - (3) Two (2) tanks storing DCPD, identified as storage tanks 4 and 7, constructed in 1973 and 1981, respectively, each with a maximum capacity of thirty thousand (30,000) gallons, and each controlled by an activated carbon conservation vent;
  - (4) Five (5) tanks storing glycol, identified as storage tank 5, 10, 11, 17, and 18, constructed in 1974, 1976, 1975, 1976, and 1977, respectively, and each with a maximum capacity of thirty thousand (30,000) gallons;
  - (5) One (1) 6,000 gallon distillate hold tank and one (1) 500 gallon aqueous ammonium storage tank used to hold and neutralize process wastewater prior to incineration;
  - (6) One (1) 3,200 gallon glycol boil tank;
  - (7) Piping fugitives;
  - (8) Inhibitor room;
  - (9) Seven (7) lab vents, one (1) IPA surge vent, and one (1) maintenance building vent;
  - (10) Two (2) fume hoods;
  - (11) Acrylic bead blower exhaust;

- (12) Waste oil tank vent;
- (13) SMC machine (R&D); and
- (14) Talc charging blower exhaust;
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons:
  - (1) Two (2) gasoline storage tanks, each with a maximum capacity of 250 gallons;
- (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (d) Diesel generators not exceeding 1600 horsepower;
  - (1) Diesel generator for boilers;
  - (2) Diesel (backup) generator for the process;
- (e) Natural gas-fired combustion source with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
  - (1) Eight (8) furnaces;
- (f) Noncontact cooling tower systems with either of the following:
  - (1) Forced and induced draft cooling tower system not regulated under a NESHAP; and
- (g) Stationary fire pumps:
  - (1) Diesel fire pump.

#### A.4 FESOP Applicability [326 IAC 2-8-2]

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

#### A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## SECTION B GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9-5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized

individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

- (c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.



- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source,

except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

---

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades [326 IAC 2-8-15(c)]**  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(d)]**  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

---

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source
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### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]

- (a) Pursuant to, 40 CFR 52 Subpart P, the allowable particulate emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

#### C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
  - (1) The potential to emit volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
  - (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM) and volatile organic compounds (VOCs), shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
  - (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
  - (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

**C.3 Opacity [326 IAC 5-1]**

---

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

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The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

---

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.6 Fugitive Dust Emissions [326 IAC 6-4]**

---

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

---

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.8 Stack Height [326 IAC 1-7]**

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

**C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:

- (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

#### **Testing Requirements [326 IAC 2-8-4(3)]**

##### **C.10 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015



no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.11 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

#### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

##### **C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

##### **C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]**

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- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

##### **C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

##### **C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

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- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
  - (b) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
  - (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

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If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP);

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]**

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- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

- (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
- (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM,

OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

##### **C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]**

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- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

##### **C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

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- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

##### **C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.22 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) natural gas fired/#2 fuel oil fired boiler, constructed in 1977, and rated at twenty-five (25) million British thermal units per hour (600 hp);
- (b) One (1) natural gas fired/ #2 fuel oil fired hot oil heater, constructed in 1973, rated at eighteen (18) million British thermal units per hour;
- (c) One (1) natural gas fired/#2 fuel oil fired boiler, constructed in 1990, rated at twelve and five-tenths (12.5) million British thermal units per hour (300 hp);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Sulfur Dioxide Limitation [326 IAC 2-8]

Pursuant to F127-5528-00003 and 326 IAC 2-8 (FESOP), the three boilers and the thermal oxidizer listed in Section D.2 of this permit shall be limited to a total of 2788 kgal per twelve (12) consecutive month period of #2 fuel oil. This limit is equivalent to sulfur dioxide emissions of ninety-nine (99) tons per twelve (12) consecutive month period. This limit is structured such that when including sulfur dioxide emissions from insignificant activities, the source total sulfur dioxide emissions remain below one hundred (100) tons per year. This renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable.

#### D.1.2 Particulate Emission Limitation [326 IAC 6-2-2]

Pursuant to F127-5528-00003 and 326 IAC 6-2-2 (Particulate Emissions Limitations for Sources of Indirect Heating), the twenty-five (25) million British thermal units per hour natural gas-fired/#2 fuel oil fired boiler and the eighteen (18) million British thermal units per hour natural gas-fired/#2 fuel oil fired hot oil heater are subject to 326 IAC 6-2-2 (Emission Limitations for Facilities Specified in 326 IAC 6-2-1(b)) because they are in Porter County, were constructed prior to 1983 and the oil they heat is used to heat the reactants in the reactors. Pursuant to this rule, the particulate emissions from the eighteen (18) million British thermal units per hour boiler shall be limited to 0.55 pounds per million British thermal units heat input. The particulate emissions from the twenty-five (25) million British thermal units per hour boiler shall be limited to 0.48 pounds per million British thermal units heat input.

#### D.1.3 Particulate Emission Limitation [326 IAC 6-2-4]

Pursuant to F127-5528-00003 and 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the twelve and a half (12.5) million British thermal units per hour natural gas-fired/#2 fuel oil fired boiler is subject to 326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating) because it was constructed after 1983. Pursuant to this rule, the particulate from the following units shall be limited to 0.38 pounds per million British thermal units.

#### D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 12-1] [40 CFR 60, Subpart Dc]

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):

- (a) The SO<sub>2</sub> emissions from the boilers shall not exceed five tenths (0.5) pounds per million Btu heat input; or

- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

**D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

**Compliance Determination Requirements**

**D.1.6 Sulfur Dioxide Emissions and Sulfur Content**

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Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
  - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.7 Visible Emissions Notations**

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- (a) Visible emission notations of the boiler stack exhaust shall be performed once per shift during normal daylight operations when firing No. 2 fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

### **D.1.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the source total #2 fuel usage each month.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records of visible emission notations of the boiler stack exhaust once per shift.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.9 Reporting Requirements**

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- (a) A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) A quarterly summary of the information to document compliance with Condition D.1.4 in any compliance period when No. 2 fuel oil was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their



equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (d) Two (2) reactors, identified as reactor No. 1 and No. 2, constructed in 1973 and 1985, respectively, and with a maximum capacity of eight thousand (8,000) and nine thousand (9,000) gallons, respectively, with VOC emissions controlled by an eight (8) million British thermal units per hour thermal oxidizer, constructed in 1977;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Sulfur Dioxide Limitation [326 IAC 2-8]

Pursuant to F127-5528-00003 and 326 IAC 2-8 (FESOP), the thermal oxidizer and the three (3) boilers listed in Section D.1 of this permit shall be limited to a total of 2788 kgal per twelve (12) consecutive month period of #2 fuel oil with compliance determined at the end of each month. This limit is equivalent to sulfur dioxide emissions of ninety-nine (99) tons per twelve (12) consecutive month period. This limit is structured such that when including sulfur dioxide emissions from insignificant activities, the source total sulfur dioxide emissions remain below one hundred (100) tons per year. This renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable.

#### D.2.2 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]

Pursuant to F127-5538-00003 and 326 IAC 2-8 (FESOP) the raw material input to the two (2) reactors shall be limited to less than 50,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to total volatile organic compound (VOC) emissions from the two (2) reactors of less than 1.68 tons per year and the total HAP emissions from the two (2) reactors of less than 1.68 tons per year. The source shall maintain an overall efficiency of 99.9% for the thermal oxidizer. This limit is structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) not applicable. This limit also ensures that 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-3 (Emission Offset) do not apply to reactor no.2.

#### D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

### Compliance Determination Requirements

#### D.2.4 Volatile Organic Compounds (VOC)

The Permittee shall operate the thermal oxidizer at all times that the reactors are in operation to achieve compliance with Condition D.2.2.

#### D.2.5 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]

The previous test was performed on October 21-22, 1999. Between April 2004 and October 2004, the Permittee shall conduct a performance test to verify VOC control efficiency pursuant to Condition D.2.2 for the thermal oxidizer utilizing methods as approved by the Commissioner. This

test shall be repeated at least once every five years from the date of this valid compliance demonstration.

### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **D.2.6 Thermal Oxidizer Temperature**

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- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as an hourly average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the hourly average temperature of the thermal oxidizer is below 1412 °F. An hourly average temperature that is below 1412 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The Permittee shall determine the hourly average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.2.2, as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the hourly average temperature of the thermal oxidizer is below the hourly average temperature as observed during the compliant stack test. An hourly average temperature that is below the hourly average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### **D.2.7 Parametric Monitoring**

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- (a) The Permittee shall determine fan amperage or duct pressure from the most recent valid stack test that demonstrates compliance with the limits in Condition D.2.2, as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. When for any one reading, the duct pressure or fan amperage is outside the normal range as established in the most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

### **Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.2.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the source total #2 fuel usage each month.
- (b) To document compliance with Condition D.2.2, the Permittee shall maintain records of the total raw material input to the two (2) reactors.

- (c) To document compliance with Conditions D.2.6 and D.2.7, the Permittee shall maintain the following records:
  - (1) The continuous temperature records for the thermal oxidizer and the temperature used to demonstrate compliance during the most recent compliance stack test.
  - (2) Daily records of the duct pressure or fan amperage.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.3 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (e) One (1) process styrene emission control system consisting to two (2) activated carbon units in series with continuous styrene emission monitoring. This process styrene emission control system provides control for items (f), (g), (h), and (i);
- (f) Two (2) thinning tanks, identified as thinning tank No. 1 and No. 2, constructed in 1973 and 1985, respectively, both storing polyester resin, with a maximum capacity of sixteen thousand one hundred (16,100) and seventeen thousand seven hundred (17,700) gallons, respectively, and both with VOC emissions controlled by the process styrene emission control system described in (e);
- (g) Six (6) blend tanks, identified as blend tank No.1, No. 2, No. 3, No. 4, No. 5 and No. 6, constructed in 1973, 1973, 1979, 1996, 1999, and 1999 respectively, all storing polyester resin, with a maximum capacity of six thousand (6,000), fifteen thousand (15,000), fifteen thousand (15,000), eight hundred (800) gallons, six thousand (6,000) and six thousand (6,000) respectively, controlled by the process styrene emission control system described in (e);
- (h) One (1) styrene flush tank used to hold and capture styrene and used to flush pipes and process vessels between product runs, venting to the process styrene emission control system described in (e);
- (i) One (1) drum off station and vent, constructed in 1985, which transfers finished products to drums and totes for shipment, with a maximum throughput of six thousand fifteen (6,015) tons per year, and with VOC emissions controlled by the process styrene emission control system described in (e);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.3.1 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]

- (a) Pursuant to AF127-11001-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin production for the thinning tanks shall be limited to less than 94,365 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to total volatile organic compound (VOC) emissions from the two (2) thinning tanks of less than 0.36 tons per year and total HAP emissions from the two (2) thinning tanks of less than 0.36 tons per year. The source shall comply with the limit by using two carbon adsorption units in series. One unit shall maintain an overall control efficiency of 90.25%. The other unit shall maintain an overall control efficiency of 92%.
- (b) Pursuant to AF127-11001-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin production for the blend tanks and flush tank shall be limited to less than 94,365 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to total volatile organic compound (VOC) emissions from all six (6) blend tanks and one (1) flush tank of less than 0.36 tons per year and total HAP emissions from all six (6) blend tanks and one (1) flush tank of less than 0.36 tons per year. The source shall comply with this limit by using two carbon adsorption units in series. One unit shall maintain an overall control efficiency of 90.25%. The other unit shall maintain an overall control efficiency of 92%.

- (c) Pursuant to AF127-5538-00003 and 326 IAC 2-8 (FESOP), the drum off vent throughput shall be limited to less than 6,015 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to total volatile organic compound (VOC) emissions from the drum off vent of less than 0.03 tons per year and the total HAP emissions from the drum off vent of less than 0.03 tons per year. The source shall comply with this limit by maintaining a carbon adsorption unit with an overall control efficiency of 90%.

These limits are structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) not applicable. These limits also ensure that individual emissions from thinning tank No. 2, blend tanks No. 4, 5, and 6, and the drum off vent are all less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) are not applicable to thinning tank No. 2, blend tanks No. 4, 5, and 6, and the drum off vent. These limits also ensure that individual emissions from thinning tank No. 2, blend tanks No. 3, 4, 5, and 6, and the drum off vent are less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) are not applicable to thinning tank No. 2, blend tanks No. 3, 4, 5, and 6, and the drum off vent.

#### **D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.3.3 Activated Carbon**

Activated carbon canisters shall be used at all times to control styrene emissions. Emission concentrations from each activated carbon unit shall be measured at least weekly. When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by set of carbon canisters shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.3.4 Record Keeping Requirements**

- (a) To document compliance with Condition D.3.1, the Permittee shall maintain records of styrene monomer resin production for the thinning tanks, flush tank and blend tanks each month. The Permittee shall also maintain records of the throughput to the drum off system each month.
- (b) To document compliance with Condition D.3.3, the Permittee shall maintain records of the styrene concentration at the carbon canister stack outlet, and a log of the dates of carbon canister replacement and regeneration.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.3.5 Reporting Requirements**

A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit,

using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

## SECTION D.4 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (j) Two storage tanks styrene emission control systems consisting of one (1) activated carbon unit each. The storage tanks listed below each vent through one of the systems: storage tanks No. 2, 3 6, 8, and 9 vent through the east styrene emission control system; and storage tanks No. 12, 13, 14, 19, 20, and 21 vent through the west styrene emission control system. The following is a description of each storage tank:
- (1) One (1) tank storing resin, identified as storage tank 2, constructed in 1973, with a maximum capacity of sixteen thousand (16,000) gallons;
  - (2) Two (2) tanks storing resin, identified as storage tank 3 and 6, both constructed in 1973, each with a maximum capacity of thirty thousand (30,000) gallons;
  - (3) Two (2) tanks storing resin, identified as storage tanks 8 and 9, both constructed in 1975, each with a maximum capacity of one hundred and five thousand (105,000) gallons;
  - (4) Three (3) tanks storing resin, identified as storage tanks 12, 13, and 14, constructed in 1979, 1981, and 1981, respectively, each with a maximum capacity of fifty thousand (50,000) gallons;
  - (5) One (1) tank storing styrene, identified as storage tank 19, constructed in 1995, with a maximum capacity of sixty-nine thousand (69,000) gallons; and
  - (6) Two (2) storage tanks for resin, identified as storage tank 20 and 21, both constructed in 1997, each with a maximum capacity of thirty thousand (30,000) gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.4.1 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]

Pursuant to AF127-5538-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin production for the storage tanks shall be limited to less than 155,935 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to total volatile organic compound (VOC) emissions from the storage tanks of less than 0.672 tons per year and the total HAP emissions from the storage tanks of less than 0.672 tons per year. The source shall maintain an overall efficiency of 90.25% when using the activate carbon canister and tank conservation vent. This limit is structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) not applicable. This limit also ensures that individual emissions from storage tanks No. 13, 14, 19, 20, and 21 are all less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) are not applicable to storage tanks No. 13, 14, 19, 20, and 21. This limit also ensures that individual emissions from storage tanks No. 12, 13, 14, 19, 20, and 21 are all less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore the



requirements of 326 IAC 2-3 (Emission Offset) are not applicable to storage tanks No. 12, 13, 14, 19, 20, and 21.

**D.4.2 Storage Tanks [40 CFR 60, Subpart Kb][326 IAC 12]**

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Storage tank 19, 20, and 21 are subject to the New Source Performance Standard, 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Constructed, Reconstruction, or Modification Commenced After July 23, 1984) because they were all constructed after 1984 and have a maximum capacity greater than forty (40) cubic meters. However, no specific emission limitations or standards apply. Only record keeping requirements apply which are listed in the record keeping condition of this section.

**D.4.3 Storage Tanks [326 IAC 8-9]**

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326 IAC 8-9 (Volatile Organic Liquid Storage Vessels), applies to tank 8, 9, 12, 13, and 14. However no specific limitations or standards apply. Only recordkeeping and reporting requirements apply and they are listed in D.4.6.

**D.4.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.4.5 Activated Carbon**

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An activated carbon canister shall be used at all times to control styrene emissions. Emission concentrations from each activated carbon unit shall be measured at least weekly. When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by carbon canister shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

**D.4.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.4.1, the Permittee shall maintain records of the styrene monomer production for the storage tanks each month.
- (b) To document compliance with Condition D.4.5, the Permittee shall maintain records of the weekly styrene concentration at the carbon canister stack outlet, and a log of the dates of carbon canister replacement and regeneration.
- (c) Pursuant to 40 CFR 60.116b (a) and (b), the owner and operator of tank 19, 20, and 21 shall maintain records of the tanks' dimensions and an analysis showing the capacity of the storage tanks. Pursuant to 40 CFR 60.116b(d), the owner or operator of tank 19 shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 5.2 kPa and the owner or operator of tank 20 and 21 shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 27.6 kPa.
- (d) Pursuant to 326 IAC 8-9, the owner or operator of storage tank 2, 3, 6, 8, 9, 12, 13, and 14 shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:
  - (1) The vessel identification number;

(2) The vessel dimensions; and

(3) The vessel capacity.

The records shall be maintained for the life of the vessel.

- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.4.7 Reporting Requirements

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A quarterly summary of the information to document compliance with Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.5 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (k) One (1) Development and Testing Pultrusion Unit with styrene monomer resin, with a maximum capacity of one hundred eighty (180) fiberglass parts per hour, using one (1) baghouse and carbon adsorption unit for control, exhausting to two (2) stacks (J-280 and J-281), consisting of the following equipment:
- (1) Mat and roving creels;
  - (2) Wet out station;
  - (3) Die table;
  - (4) Control section;
  - (5) Puller section;
  - (6) Automatic cut-off saw;
  - (7) Offload table;
  - (8) Diaphragm pump;
  - (9) Carbons adsorption; and
  - (10) Cyclone dust collector and HEPA filter.
- (l) One (1) pneumatic conveying system (IPA unloading), constructed in 1991, with a maximum throughput of ten million (10,000,000) pounds per year, and with particulate emissions controlled by a bag filter (isophthalic unloading system);
- (m) One (1) bulk isophthalic acid handling system, constructed in 1983, with a maximum throughput of ten million (10,000,000) pounds per year;
- (n) Ten (10) unloading stations primarily for polyester resin, described as follows, with fugitive VOC and HAP emissions:
- (1) One (1) unloading station, identified as Backpad, constructed in 1990, and relocated/modified in 1999, with a maximum throughput of two million (2,000,000) pounds of glycol per year;
  - (2) One (1) unloading station, identified as Portable pump, constructed in 1983, with a maximum throughput of thirty-three million (33,000,000) pounds per year;
  - (3) One (1) unloading station, identified as Railsiding, constructed in 1978, with a maximum throughput of seventy-three million (73,000,000) pounds of maleic anhydride/dicyclopentadiene per year;
  - (4) One (1) unloading station, identified as Railsiding, constructed in 1997, with a maximum throughput of seventy-three million (73,000,000) pounds of styrene per year;

## SECTION D.5 FACILITY OPERATION CONDITIONS (Continued)

### Facility Description [326 IAC 2-8-4(10)]:

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

- (5) One (1) unloading station, identified as Railsiding, constructed in 1999, with a maximum throughput of seven-three million (73,000,000) pounds of polyester resin per year;
- (6) One (1) unloading station, identified as Ethylene Glycol/Methyl Propanediol, constructed in 1984, with a maximum throughput of twenty-nine million two hundred thousand (29,200,000) pounds per year;
- (7) One (1) unloading station, identified as Phthalic Anhydride, constructed in 1987, with a maximum throughput of fourteen million six hundred thousand (14,600,000) pounds per year;
- (8) One (1) unloading station, identified as Diethylene Glycol/Propylene Glycol, constructed in 1984, with a maximum throughput of twenty-nine million two hundred thousand (29,200,000) pounds per year;
- (9) One (1) unloading station, identified as 1,3 Butylene Glycol at P4, constructed in 1989 (this station has not been in operation for 3 years); and
- (10) One (1) unloading station, identified as Flammable Unloading of Polyester Resin, constructed in 1984, with a maximum throughput of forty-three million eight hundred thousand (43,800,000) pounds per year;
- (o) Three (3) loading stations for polyester resin, described as follows, with fugitive VOC and HAP emissions:
  - (1) One (1) loading station, identified as Tanker Bays 1 and 2, constructed in 1984, with a maximum throughput of sixty-five million (65,000,000) pounds per year;
  - (2) One (1) loading station, identified as Tanker Bays 3 and 4, constructed in 1984, with a maximum throughput of sixty-five million (65,000,000) pounds per year; and
  - (3) One (1) loading station, identified as Tanker Bays 5 and 6, constructed in 2000, with a maximum throughput of sixty-five million (65,000,000) pounds per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.5.1 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]

Pursuant to R127-9880-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin usage for the development and testing pultrusion unit shall be limited to less than 160 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent volatile organic compound (VOC) emissions of less than 0.25 tons per year and HAP emissions of less than 0.25 tons per year. The source shall maintain an overall efficiency of 81% when using the carbon adsorption unit. This limit is structured such that when including VOC and

HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) not applicable. Since this limit ensures that emissions from the development and testing pultrusion unit are less than twenty-five (25) tons per year, this limit renders the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-3 (Emission Offset) not applicable.

#### D.5.2 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate emissions from the listed units shall be limited as follows when operating at the listed process weight rate.

Process	Process Weight Rate (ton/hr)	Limit (lb/hr)
Development and testing pultrusion unit	0.405	2.23
Pneumatic conveying system (IPA unloading)	0.57	2.8
Bulk isophthalic acid handling system	0.57	0.28

These limits were calculated using the following equation.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

#### D.5.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Development and Testing Pultrusion unit and its control device

### Compliance Determination Requirements

#### D.5.4 Particulate

In order to comply with D.5.2, the baghouse for particulate control shall be in operation and control emissions from the development and testing pultrusion unit and the pneumatic conveying system at all times that the facilities are in operation.

#### D.5.5 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs)

In order to comply with Condition D.5.1, the carbon adsorption units for VOC and HAP control shall be in operation and control emissions from the development and testing pultrusion unit at all times that the unit is in operation.

### Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

#### D.5.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there

are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### **D.5.7 Activated Carbon**

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An activated carbon canister shall be used at all times to control styrene emissions. Emission concentrations for each activated carbon unit shall be measured weekly by either a draeger tube or flame ionization detector. When styrene concentrations are in excess of 50 parts per million (ppm) stand-by carbon canisters shall be placed into service and the spent carbon shall be removed, regenerated, and placed into stand-by service.

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.5.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.5.1, the Permittee shall maintain records of styrene monomer resin usage each month.
- (b) To document compliance with Condition D.5.10, the Permittee shall maintain a log of the following:
  - (1) The weekly styrene concentration at the carbon canister stack outlet; and
  - (2) A log of the dates of carbon replacement and regeneration.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.5.9 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.5.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.6 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (1) One (1) tank storing phthalic anhydride, identified as storage tank 1, constructed in 1973, with a maximum capacity of sixteen thousand (16,000) gallons;
  - (2) One (1) tank storing maleic anhydride, identified as storage tank 16, constructed in 1986, with a maximum capacity of forty thousand (40,000) gallons;
  - (3) Two (2) tanks storing DCPD, identified as storage tanks 4 and 7, constructed in 1973 and 1981, respectively, each with a maximum capacity of thirty thousand (30,000) gallons, and each controlled by an activated carbon conservation vent;
  - (4) Five (5) tanks storing glycol, identified as storage tank 5, 10, 11, 17, and 18, constructed in 1974, 1976, 1975, 1976, and 1977, respectively, and each with a maximum capacity of thirty thousand (30,000) gallons;
  - (5) One (1) 6,000 gallon distillate hold tank and one (1) 500 gallon aqueous ammonium storage tank used to hold and neutralize process wastewater prior to incineration;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.6.1 Storage Tanks [326 IAC 8-9] [326 IAC 12][40 CFR 60, Subpart Kb]

- (a) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels), applies to tank 5, 10, 11, 17, and 18 and the distillate hold tank and ammonium storage tank. However no emission limitations or standard apply. Only reporting requirements exist and they are listed in D.6.2.
- (b) 40 CFR 60 Subpart 140 applies to tank 16. However, no emission limitations or standards apply. Only reporting requirements exist and they are listed in D.6.2.

### Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

#### D.6.2 Record Keeping Requirements

- (a) Pursuant to 326 IAC 8-9, the owner or operator of storage tank 1, 4, 5, 7, 10, 11, 17, and 18 the distillate hold tank and ammonium storage tank shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:
- (1) The vessel identification number;
  - (2) The vessel dimensions; and
  - (3) The vessel capacity.

The records shall be maintained for the life of the vessel.

- (b) Pursuant to 40 CFR 60.116(a) and (b), the owner and operator of tank 16 shall maintain records of the tank's dimensions and an analysis showing the capacity of the tank. Pursuant to 40 CFR 60.116(b)(d), the owner or operator shall notify the administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 5.2 kPa.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.



## SECTION D.7 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
  - (6) One (1) 3,200 gallon glycol boil tank;
  - (7) Piping fugitives;
  - (8) Inhibitor room;
  - (9) Seven (7) lab vents, one (1) IPA surge vent, and one (1) maintenance building vent;
  - (10) Two (2) fume hoods;
  - (11) Acrylic bead blower exhaust;
  - (12) Waste oil tank vent;
  - (13) SMC machine (R&D); and
  - (14) Talc charging blower exhaust;
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons:
  - (1) Two (2) gasoline storage tanks, each with a maximum capacity of 250 gallons;
- (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month:
  - (1) Diesel generator for boilers;
  - (2) Diesel (backup) generator for the process;
- (d) Diesel generators not exceeding 1600 horsepower;
- (e) Natural gas-fired combustion source with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
  - (1) Eight (8) furnaces;
- (f) Noncontact cooling tower systems with either of the following:
  - (1) Forced and induced draft cooling tower system not regulated under a NESHAP; and
- (g) Stationary fire pumps:
  - (1) Diesel fire pump.

(The information describing the process contained in this facility description box is descriptive

**Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities**

information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

There are no specific regulations applicable to these units.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) \_\_\_\_\_

9 Report (specify) \_\_\_\_\_

9 Notification (specify) \_\_\_\_\_

9 Affidavit (specify) \_\_\_\_\_

9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information  
in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003

**This form consists of 2 pages**

**Page 1 of 2**

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C** The Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - C** The Permittee must submit notice in writing or by facsimile within two **(2)** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Report period

Beginning: \_\_\_\_\_

Ending: \_\_\_\_\_

Boiler Affected	Alternate Fuel	Days Burning Alternate Fuel	
		From	To

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Boilers and thermal incinerator  
Parameter: #2 fuel oil usage  
Limit: Less than a total of 2788 kgal per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Two (2) reactors  
Parameter: Raw material input  
Limit: Less than 50,000 tons per 12 consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Two (2) thinning tanks  
Parameter: Styrene monomer resin production  
Limit: Less than 94,365 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Six (6) blend tanks and one (1) flush tank  
Parameter: Styrene monomer resin production  
Limit: Less than 94,365 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Drum off vent  
Parameter: Drum off vent throughput  
Limit: Less than 6,015 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Storage tanks  
Parameter: Styrene monomer resin production  
Limit: Less than 155,935 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Development and testing pultrusion unit  
Parameter: Styrene monomer resin usage  
Limit: Less than a 1578.9 tons per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**April 8, 2003**

**Indiana Department of Environmental Management  
Office of Air Quality**

**Addendum to the Technical Support Document  
for Federally Enforceable State Operating Permit (FESOP) Renewal**

**Source Background and Description**

Source Name: AOC, L.L.C.  
Source Location: 2552 Industrial Drive, Valparaiso, Indiana 46383-9510  
County: Porter  
SIC Code: 2821  
Operation Permit No.: F127-13997-00003  
Permit Reviewer: ERG/KC

On November 23, 2001, the Office of Air Quality (OAQ) had a notice published in the Chesterton Tribune, Chesterton, Indiana, stating that AOC, L.L.C. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a polyester and acrylic resin source with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 20, AOC, L.L.C submitted comments on the proposed FESOP Renewal. The summary of the comments is as follows:

**Comment 1:**

The source noted that the maximum throughput of the drum off station and vent was incorrect and requested that the maximum throughput be changed from 8,148,000 pounds per year to 6,015 tons per year.

**Response to Comment 1:**

This change is not an increase in actual usage and there is no change in the potential to emit. Therefore, in response to this comment, the following changes were made to the permit:

**A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]**

---

This stationary source consists of the following emission units and pollution control devices:

- (i) One (1) drum off station and vent, constructed in 1985, which transfers finished products to drums and totes for shipment, with a maximum throughput of ~~eight million one hundred forty-eight thousand (8,148,000) pounds~~ **six thousand fifteen (6,015) tons** per year, and with VOC emissions controlled by the process styrene emission control system described in (e);



## SECTION D.3 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (i) One (1) drum off station and vent, constructed in 1985, which transfers finished products to drums and totes for shipment, with a maximum throughput of ~~eight million one hundred forty-eight thousand (8,148,000) pounds~~ **six thousand fifteen (6,015) tons** per year, and with VOC emissions controlled by the process styrene emission control system described in (e);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Comment 2:

The source noted that the maximum throughput of the pneumatic conveying system (IPA unloading) and bulk isophthalic acid handling system was incorrect and requested that the maximum throughput be changed from 600,000 pounds per year to 10,000,000 pounds per year.

### Response to Comment 2:

This change is not an increase in actual usage and there is no change in the potential to emit. Therefore, in response to this comment, the following changes were made to the permit:

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (l) One (1) pneumatic conveying system (IPA unloading), constructed in 1991, with a maximum throughput of ~~six hundred thousand (600,000)~~ **ten million (10,000,000)** pounds per year, and with particulate emissions controlled by a bag filter (isophthalic unloading system);
- (m) One (1) bulk isophthalic acid handling system, constructed in 1983, with a maximum throughput of ~~six hundred thousand (600,000)~~ **ten million (10,000,000)** pounds per year;

## SECTION D.5 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (l) One (1) pneumatic conveying system (IPA unloading), constructed in 1991, with a maximum throughput of ~~six hundred thousand (600,000)~~ **ten million (10,000,000)** pounds per year, and with particulate emissions controlled by a bag filter (isophthalic unloading system);
- (m) One (1) bulk isophthalic acid handling system, constructed in 1983, with a maximum throughput of ~~six hundred thousand (600,000)~~ **ten million (10,000,000)** pounds per year;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Comment 3:

The source noted that the maximum capacity in A.2(a)(4) is spelt out as “thirty thousand” however, the number next to “thirty thousand” is 50,000. The source stated that thirty thousand is correct and requested that 50,000 be changed to 30,000.

### Response to Comment 3:

In response to this comment, the following changes were made to the permit in order to correct the typo:

#### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (4) Five (5) tanks storing glycol, identified as storage tank 5, 10, 11, 17, and 18, constructed in 1974, 1976, 1975, 1976, and 1977, respectively, and each with a maximum capacity of thirty thousand (530,000) gallons;

### SECTION D.6 FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (4) Five (5) tanks storing glycol, identified as storage tank 5, 10, 11, 17, and 18, constructed in 1974, 1976, 1975, 1976, and 1977, respectively, and each with a maximum capacity of thirty thousand (530,000) gallons;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Comment 4:

The source noted that the units listed in A.3 (13) through (17) are integral parts of various other significant units. Therefore, the emissions from these units are already accounted for and there is no reason to list them separately. The source requests that these units be deleted.

### Response to Comment 4:

IDEM agrees and the following changes were made to the permit in response to this comment:

#### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
- (13) ~~Fumed silica;~~
- (14) ~~Turbine agitator;~~
- (15) ~~Sonic mixer;~~

~~(16) Positive displacement charge pump; and~~

~~(17) Positive displacement transfer pump with high pressure shut off switch;~~

## SECTION D.7 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:

~~(13) Fumed silica;~~

~~(14) Turbine agitator;~~

~~(15) Sonic mixer;~~

~~(16) Positive displacement charge pump; and~~

~~(17) Positive displacement transfer pump with high pressure shut off switch;~~

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Comment 5:

The source would like the following units to be added to their insignificant activity list: SMC Machine (R&D) and talc charging blower exhaust. The source states that the SMC machine was included in the original FESOP application and the talc charging blower exhaust is a new unit.

### Response to Comment 5:

The new insignificant activities were added to the permit as follows:

#### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:

**(13) SMC Machine (R&D); and**

**(14) Talc charging blower exhaust;**

## SECTION D.7 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons

**Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities**

per year, and lead emissions less than two-tenths (0.2) tons per year:

**(13) SMC Machine (R&D); and**

**(14) Talc charging blower exhaust;**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Comment 6:**

The source requested that the frequency of visible emissions notations in Condition D.1.7 (Visible Emissions Notations) be reduced from once per shift to once per day because they only operate two shifts a day. One shift is during daylight and the other is at night. Therefore, since the requirement states that “visible emission notations of the boiler stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere,” the source would only be making notations during their one daylight shift. Since they would only be taking notations once per day, they would like this specified in their permit.

**Response to Comment 6:**

The visible emissions notations must be monitored once per shift during normal daylight hours. Even though this source only has one shift during daylight hours and would effectively only be required to monitor the visible emissions once per day, the permit was not changed. It was not changed because, in the future, the source could choose to operate more shifts during the day. If the wording was changed, then the source would only have to make visible emissions notations once per day instead of once each shift during daylight hours. IDEM feels that once per shift visible emissions notations are necessary to ensure compliance with the applicable rules.

**Comment 7:**

The source requested that the limit in Condition D.2.2 (FESOP Limitations) be changed from 4,167 tons per twelve consecutive month period to 50,000 tons per twelve consecutive month period. The source noted that during discussions with IDEM, it was agreed that the limit should be 50,000 tons per year. 4,167 is 50,000 divided by 12. Therefore the source feels that the limit was accidentally listed as 4,167 per twelve consecutive month period instead of 50,000 tons per twelve (12) consecutive month period.

**Response to Comment 7:**

IDEM agrees with the source. During discussions with IDEM and the source, it was agreed that the limit should be 50,000 tons per year. However, when the limit was placed in the permit, it was inadvertently listed as 4,167 tons per 12 consecutive month period. The error was fixed here.

Additionally, the limit in Condition D.2.2 limits the emissions from the two reactors to less than 1.68 tons per year combined. Since the combined limit is less than 25 tons per year, this limit also effectively ensures that emissions from reactor No. 2 are less than 25 tons per year and therefore also ensures that reactor No. 2 is not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-3 (Emission Offset). Reactor No. 1 is not subject to 326 IAC 8-1-6 or 326 IAC 2-3 because it was constructed prior to the applicability date of this rule. To clarify that Condition D.2.2 effectively ensures that 326 IAC 8-1-6 and 326 IAC 2-3 are not applicable to reactor No. 2, the following changes were made.

**D.2.2 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6][326 IAC 2-3]**

Pursuant to F127-5538-00003 and 326 IAC 2-8 (FESOP) the raw material input to the two (2) reactors shall be limited to less than ~~4,167~~ **50,000** tons per twelve (12) consecutive month period

**with compliance determined at the end of each month.** This limit is equivalent to total volatile organic compound (VOC) emissions from the two (2) reactors of less than 1.68 tons per year and the total HAP emissions from the two (2) reactors of less than 1.68 tons per year. The source ~~will be in compliance with this limit by controlling emissions with an incinerator with~~ **shall maintain an overall efficiency of 99.9% for the thermal oxidizer.** This limit is structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) ~~and 326 IAC 8-1-6 (New Facilities, General Reduction Requirements)~~ not applicable. **This limit also ensures that 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) and 326 IAC 2-3 (Emission Offset) do not apply to Reactor No. 2.**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name:	AOC, L.L.C.
Source Address:	2552 Industrial Drive, Valparaiso, Indiana 46383
Mailing Address:	2552 Industrial Drive, Valparaiso, Indiana 46383
FESOP No.:	F127-13997-00003
Facility:	Two (2) reactors
Parameter:	Raw material input
Limit:	Less than <del>4,167</del> <b>50,000</b> tons per 12 consecutive month period

**Comment 8:**

The source requested that the references to fan amperage in Condition D.2.5 (Thermal Oxidizer) be removed from the permit as the source does not currently record the fan amperage. The source suggests that the condition be removed and replaced with the following language: "The thermal oxidizer shall operate at all time that the reactors are operating. When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1400°F, a maximum carbon monoxide emission of 200 ppm on a one-hour average, a minimum stack flow of 30,000 scfh, and a maximum stack flow of 240,000 scfh. This corresponds to an overall VOC control efficiency of 99.9% based on the stack capture and the destruction efficiency test conducted on October 21-22, 1999. These operating conditions and destruction efficiency of 99.9% shall be verified in subsequent stack testing identified in Condition D.2.4 above." The source noted that they know the blower should continuously provide at least 1000 scfm to the thermal oxidizer for proper combustion. This equates to a minimum stack flow of 30,000 scfh and eliminates the need to verify fan amperage. The CO reading of 200 ppm is the source's best indicator of VOC destruction. They know that, no matter how much input, a CO reading above 200 ppm results in excessive VOC emissions.

**Response to Comment 8:**

IDEM, OAQ does not consider the compliance monitoring requirements that the source proposes above to be adequate to ensure that the required overall control efficiency is being maintained. Duct pressure or fan amperage is required to be monitored in order to ensure good capture and has no correlation with VOC destruction efficiency. The changes suggested by the source ensure VOC destruction efficiency only.

However, IDEM has made changes as shown below to clarify the intent of the following conditions and to update the temperature obtained during the most recent compliant stack test.

#### **D.2.4 Volatile Organic Compounds (VOC)**

---

**The Permittee shall operate the thermal oxidizer at all times that the reactors are in operation to achieve compliance with Condition D.2.2.**

#### **D.2.45 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]**

---

The previous test was performed on October 21-22, 1999. **Between April 2004 and October 2004, By April 22, 2005, the Permittee shall conduct a performance VOC testing to verify VOC control efficiency as per Condition D.2.2 for the thermal oxidizer utilizing Method 25 (40 CFR 60, Appendix A) or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration.**

#### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **D.2.56 Thermal Oxidizer Temperature**

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~~The thermal oxidizer shall operate at all times that the process is in operation. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1400 °F during operation or a minimum temperature established during the most recent compliant stack test, as approved by IDEM. The thermal oxidizer shall also maintain a maximum carbon monoxide emission of 200 ppm on a one-hour average, a minimum stack flow of 30,000 scfh, and a maximum stack flow of 240,000 scfh. The temperature CO emission and stack flow all correlates to an overall VOC control efficiency of 99.9 % based on the stack capture and destruction efficiency test conducted on October 21-22, 1999.~~

- (a) **A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as an hourly average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the hourly average temperature of the thermal oxidizer is below 1412 °F. An hourly average temperature that is below 1412 °F is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.**
- (b) **The Permittee shall determine the hourly average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.2.2, as approved by IDEM.**
- (c) **On and after the date the approved stack test results are available, the Permittee shall take appropriate response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports whenever the hourly average temperature of the thermal oxidizer is below the hourly average temperature as observed during the compliant stack test. An hourly average temperature that is below the hourly average temperature as observed during the compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.**

#### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.2.67 Parametric Monitoring**

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(a) **The Permittee shall determine fan amperage or duct pressure from the most recent valid stack test that demonstrates compliance with the limits in Condition D.2.2, as approved by IDEM.**

(a b) ~~A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to at or above the hourly average temperature used to demonstrate compliance during the most recent compliance stack test.~~

The duct pressure or fan amperage shall be observed at least once per ~~week~~ **day** when the thermal oxidizer is in operation. ~~This pressure or amperage shall be maintained with the range as established in most recent compliant stack test.~~ **When for any one reading, the duct pressure or fan amperage is outside the normal range as established in the most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A reading that is outside the above mentioned range is not a deviation from this permit.**

(c) ~~The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.~~

#### **Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

##### **D.2.78 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.1, the Permittee shall maintain records of the source total #2 fuel usage **each month**.
- (b) To document compliance with Condition D.2.2, the Permittee shall maintain records of the total raw material input to the two (2) reactors.
- (c) To document compliance with Conditions **D.2.6 and D.2.67**, the Permittee shall maintain the following records:
  - (1) The continuous temperature records for the thermal oxidizer and the temperature used to demonstrate compliance during the most recent compliance stack test.
  - (2) ~~Weekly~~ **Daily** records of the duct pressure or fan amperage.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

##### **D.2.89 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### **Comment 9:**

The source would like the word “regenerative” to be removed from D.2.7 (Parametric Monitoring) since their thermal oxidizer is not a regenerative unit.

**Response to Comment 9:**

This comment is no longer applicable because the language referenced in this comment has been removed in Comment 8.

**Comment 10:**

The source requested to reduce the FESOP limit for the thinning tanks (D.3.1(a)) from 0.48 tons per year to 0.36 tons per year. The source also requested that the FESOP limit for the blending tanks (D.3.1(b)) be raised by the same amount that the thinning tank FESOP limit was reduced. They would like the blending tank limit to be raised from 0.24 to 0.36 tons per year. The source noted that these changes will still limit the source to less than 25 tons per year of VOC.

The source would like the drum off vent limit in Condition D.3.1(c) (FESOP Limitations) to be reduced from 6,015 kilogallons per year (55,338,000 pounds per year) to 6,015 tons per year (12,030,000 pounds per year) since 55,338,000 pounds per year is much more than the drum off station and vent can actually handle. Making this reduction in the throughput limit would effectively reduce the VOC emissions limit for this unit from 0.12 to 0.03 tons per year.

The source also requested that the last sentence of Condition D.3.1(a) and (b) (FESOP Limitations) be changed to read: “The source shall be in compliance with the limit by using the two carbon units in series with an overall efficiency of 92.5%.” The source believes that it is misleading to talk about the efficiency of one unit or the other as the condition currently does.

**Response to Comment 10:**

IDEM believes that the capture and control efficiencies of both carbon units need to be stated in the permit because these are standards required to ensure emission reductions are maintained to avoid 326 IAC 2-7, 326 IAC 8-1-6, and 326 IAC 2-3. Therefore, the changes to the last sentence of Condition D.3.1(a) and (b) requested by the Permittee have not been made. Instead, changes were made to improve the clarity of this condition.

Since the source is requesting that the FESOP limit for the blending tanks be increased by the same amount that the FESOP limit for the thinning tanks is reduced, IDEM agrees to make the change. Additionally, IDEM has agreed to reduce the FESOP VOC limit for the drum off vent. With these changes, the source will still have an overall source limit of less than 25 tons per year of VOC and this change in individual limits will not affect the source wide limit.

The limit in Condition D.3.1(a) now limits the emissions from the two thinning tanks to less than 0.36 tons per year combined. Since the combined limit is less than 25 tons per year, this limit also effectively ensures that emissions from thinning tank No. 2 are less than 25 tons per year and therefore also ensures that thinning tank No. 2 is not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-3 (Emission Offset). Thinning tank No. 1 is not subject to 326 IAC 8-1-6 or 326 IAC 2-3 because it was constructed prior to the applicability dates of these rules.

The limit in Condition D.3.1(b) now limits the emissions from the blend tanks and flush tanks to less than 0.36 tons per year combined. Since the combined limit is 0.36 tons per year, this limit also effectively ensures that individual emissions from blend tanks No. 4, 5, and 6 are less than 25 tons per year and therefore also ensures that blend tanks No. 4, 5, and 6 are not subject to 326 IAC 8-1-6. Blend tanks No. 1, 2, and 3 are not subject to 326 IAC 8-1-6 because they were constructed prior to the applicability date of this rule. The limits also ensure that blend tanks No. 3, 4, 5, and 6 are not subject to the requirements of



326 IAC 2-3. Blend tanks No. 1 and 2 are not subject to 326 IAC 2-3 because they were constructed prior to the applicability date of the rule.

The limit in Condition D.3.1(c) now limits the VOC emissions from the drum off vent to less than 0.03 tons per year. Since this limit is less than 25 tons per year, this limit also effectively ensures that the drum off vent is not subject to 326 IAC 8-1-6 and 326 IAC 2-3. Thus, changes were made to Condition D.3.1 to clarify that the condition effectively ensures that 326 IAC 8-1-6 and 326 IAC 2-3 is not applicable to thinning tank No. 2, blend tanks No. 3, 4, 5, and 6, and the drum off vent.

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The calculations for the new limits are as follows:

### **Limits**

#### *Thinning tanks*

$(0.36 \text{ ton sty emit/yr}) * (\text{lb resin prod}/4.24\text{E-}5 \text{ lb sty emit}) * (1/[(0.57*(1-.9025))+(.43*(1-.92))]) * (2000 \text{ lb sty emit/ton sty emit}) * (\text{ton resin}/2000 \text{ lb resin}) = 94,365 \text{ ton resin prod/yr}$

#### *Blending Tanks*

$(0.36 \text{ ton sty emit/yr}) * (\text{lb resin prod}/4.24\text{E-}5 \text{ lb sty emit}) * (1/[(0.57*(1-.9025))+(.43*(1-.92))]) * (2000 \text{ lb sty emit/ton sty emit}) * (\text{ton resin}/2000 \text{ lb resin}) = 94,365 \text{ ton resin prod/yr}$

#### *Drum Off Vent*

$(0.12 \text{ 0.03 ton sty emit/yr}) * (\text{kgal lb}/0.399 \text{ 4.29x10}^{-5} \text{ lb sty emit}) * (1/(1-.9025)) * (2000 \text{ lb sty emit/ton sty emit}) / 2000 \text{ (lb/ton)} = 6015 \text{ kgal ton/yr}$

The following changes were made to the permit as a result of this comment.

### **D.3.1 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]**

- 
- (a) Pursuant to AF127-11001-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin production for the thinning tanks shall be limited to less than ~~125,824~~ **94,365** tons per twelve (12) consecutive month period **with compliance determined at the end of each month**. This limit is equivalent to total volatile organic compound (VOC) emissions from the two (2) thinning tanks of less than ~~0.48~~ **0.36** tons per year and total HAP emissions from the two (2) thinning tanks of less than ~~0.48~~ **0.36** tons per year. The source shall be in compliance **comply** with the limit by using two carbon adsorption units in series. ~~one with an overall efficiency of 90.25% and the other with an overall efficiency of 92%. One unit shall maintain an overall control efficiency of 90.25%. The other unit shall maintain an overall control efficiency of 92%.~~
- (b) Pursuant to AF127-11001-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin production for the blend tanks and flush tank shall be limited to less than ~~62,944~~ **94,365** tons per twelve (12) consecutive month period **with compliance determined at the end of each month**. This limit is equivalent to total volatile organic compound (VOC) emissions from all six (6) blend tanks and one (1) flush tank of less than ~~0.24~~ **0.36** tons per year and total HAP emissions from all six (6) blend tanks and one (1) flush tank of less than ~~0.24~~ **0.36** tons per year. The source ~~shall comply will be in compliance~~ with this limit by using two carbon adsorption units in series. ~~one with an overall efficiency of 90.25% and the other with an overall efficiency of 92%. One unit shall maintain an overall control efficiency of 90.25%. The other unit shall maintain an overall control efficiency of 92%.~~

- (c) Pursuant to AF127-5538-00003 and 326 IAC 2-8 (FESOP), the drum off vent throughput shall be limited to less than 6,015 ~~kilograms~~ **tons** per twelve (12) consecutive month period **with compliance determined at the end of each month**. This limit is equivalent to total volatile organic compound (VOC) emissions from the drum off vent of less than ~~0.42~~ **0.03** tons per year and the total HAP emissions from the drum off vent of less than ~~0.42~~ **0.03** tons per year. The source shall **comply** ~~be in compliance~~ with this limit by ~~using~~ **maintaining** a carbon adsorption unit with an **overall control** efficiency of 90%.

These limits are structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) and ~~326 IAC 8-1-6 (New Facilities; General Reduction Requirements)~~ not applicable. **These limits also ensure that individual emissions from thinning tank No. 2, blend tanks No. 4, 5, and 6, and the drum off vent are all less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) are not applicable to thinning tank No. 2, blend tanks No. 4, 5, and 6, and the drum off vent. These limits also ensure that individual emissions from thinning tank No. 2, blend tanks No. 3, 4, 5, and 6, and the drum off vent are less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) are not applicable to thinning tank No. 2, blend tanks No. 3, 4, 5, and 6, and the drum off vent.**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name:	AOC, L.L.C.
Source Address:	2552 Industrial Drive, Valparaiso, Indiana 46383
Mailing Address:	2552 Industrial Drive, Valparaiso, Indiana 46383
FESOP No.:	F127-13997-00003
Facility:	Two (2) thinning tanks
Parameter:	Styrene monomer resin production
Limit:	Less than <del>425,824</del> <b>94,365</b> tons per twelve (12) consecutive month period

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name:	AOC, L.L.C.
Source Address:	2552 Industrial Drive, Valparaiso, Indiana 46383
Mailing Address:	2552 Industrial Drive, Valparaiso, Indiana 46383
FESOP No.:	F127-13997-00003
Facility:	Six (6) blend tanks and one (1) flush tank
Parameter:	Styrene monomer resin production

Limit: Less than ~~62,944~~ **94,365** tons per twelve (12) consecutive month period

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: AOC, L.L.C.  
Source Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
Mailing Address: 2552 Industrial Drive, Valparaiso, Indiana 46383  
FESOP No.: F127-13997-00003  
Facility: Drum off vent  
Parameter: Drum off vent throughput  
Limit: Less than 6,015 ~~kilogallons~~ **tons** per twelve (12) consecutive month period

**Comment 11:**

The source noted that the styrene flush tank was not referenced in Condition D.3.4(a) (Record Keeping Requirement) as it should be. They also noted that this condition referred to the drum off vent and they would like this reference changed to say "drum off system."

**Response to Comment 11:**

The following changes were made as a result of this comment:

**D.3.4 Record Keeping Requirements**

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- (a) To document compliance with Condition D.3.1, the Permittee shall maintain records of styrene monomer resin production for the thinning **tanks, flush tank**, and blend tanks **each month**. The Permittee shall also maintain records of the throughput to the drum off ~~vent~~ **system each month**.

**Comment 12:**

The source noted that the daily record keeping requirement is unnecessary and time consuming. They believe that since their throughput requirements and emissions are based on annual limits and their reporting is based on monthly data, the record keeping requirement should be changed as follows: 1) The throughput usage of each thinning, blending, styrene tank, and drum off shall be recorded monthly; 2) Styrene concentration at carbon canister stack outlet shall be continuously recorded in one-minute increments; and 3) A log of the dates of carbon canister replacement and regeneration shall be maintained.

**Response to Comment 12:**

As a result of this comment, Condition D.3.4 was changed as shown below. The requirement to record the throughput usage of each thinning, blending, and styrene tank and drum off was deleted from Condition D.3.4(b) because it is already included in Condition D.3.4(a).

**D.3.4 Record Keeping Requirements**

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- (b) To document compliance with Condition D.3.3, the Permittee shall maintain records in ~~accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.3.1.~~

- ~~(1) The throughput usage of each thinning and blending tank and drum off;~~
- ~~(2) The of the continuous~~ styrene concentration at the carbon canister stack outlet;,  
and
- ~~(3) A a~~ log of the dates of carbon canister replacement and regeneration.

**Comment 13:**

For purposes of accuracy, the source requested that the reference to the activated carbon conservation vent in Condition D.4.1 (FESOP Limitations) be changed to say "activated carbon canister and tank conservation vent."

**Response to Comment 13:**

IDEM has agreed to make this change. Additionally, the limit in Condition D.4.1 limits the emissions from the storage tanks to less than 0.672 tons per year combined. Since the combined limit is less than 25 tons per year, this limit also effectively ensures that individual emissions from storage tanks No. 13, 14, 19, 20, and 21 are less than 25 tons per year and therefore also ensures that storage tanks No. 13, 14, 19, 20, and 21 are not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements). Storage tanks No. 2, 3, 6, 8, 9, and 12 are not subject to 326 IAC 8-1-6 because they were constructed prior to the applicability date of this rule. The limit also ensures that storage tanks No. 12, 13, 14, 19, 20, and 21 are not subject to 326 IAC 2-3 (Emission Offset). Storage tanks No. 2, 3, 6, 8, and 9 are not subject to 326 IAC 2-3 because they were constructed prior to the applicability date of the rule. To clarify that Condition D.4.1 effectively ensures that 326 IAC 8-1-6 is not applicable to storage tanks No. 13, 14, 19, 20, and 21, and 326 IAC 2-3 is not applicable to storage tanks 12, 13, 14, 19, 20, and 21, the following changes were made.

**D.4.1 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]**

Pursuant to AF127-5538-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin production for the storage tanks shall be limited to less than 155,935 tons per twelve (12) consecutive month period **with compliance determined at the end of each month.** This limit is equivalent to total volatile organic compound (VOC) emissions from the storage tanks of less than 0.672 tons per year and the total HAP emissions from the storage tanks of less than 0.672 tons per year. The source **shall maintain** ~~will be in compliance with this limit by controlling emissions with an activated carbon conservation vent with an overall efficiency of 90.25%~~ **when using the activated carbon canister and tank conservation vent.** This limit is structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) ~~and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)~~ not applicable. **This limit also ensures that individual emissions from storage tanks No. 13, 14, 19, 20, and 21 are all less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) are not applicable to storage tanks No. 13, 14, 19, 20, and 21. This limit also ensures that individual emissions from storage tanks No. 12, 13, 14, 19, 20, and 21 are all less than twenty-five (25) tons per twelve (12) consecutive month period each. Therefore the requirements of 326 IAC 2-3 (Emission Offset) are not applicable to storage tanks No. 12, 13, 14, 19, 20, and 21.**

**Comment 14:**

The source noted that they would like the second to last sentence of Condition D.4.5 (Activated Carbon) be edited to read: When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by carbon canister shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service. They would like this change because for each carbon unit, there is a single stand-by, not a set.

**Response to Comment 14:**

IDEM agreed to this change. Additionally, Condition D.4.5 and Condition D.3.3 were changed so that they are consistent.

**D.3.3 Activated Carbon**

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Activated carbon canisters shall be used at all times to control styrene emissions. ~~A continuous air monitor shall be used to read the styrene concentration at the outlet of the activated carbon units.~~ **Emission concentrations from each activated carbon unit shall be measured at least weekly.** When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by set of carbon canisters shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service.

**D.3.4 Record Keeping Requirements**

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- (b) To document compliance with Condition D.3.3, the Permittee shall maintain records of the ~~continuous~~ styrene concentration at the carbon canister stack outlet, and a log of the dates of carbon canister replacement and regeneration.

**D.4.5 Activated Carbon**

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An activated carbon canister shall be used at all times to control styrene emissions. Emission concentrations from each activated carbon unit shall be measured **at least weekly** ~~by either a draeger tube or a flame ionization detector.~~ When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by ~~set of~~ carbon canisters shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service.

**Comment 15:**

The source noted that Condition D.4.6 (Record Keeping Requirements) should be changed to require monthly records of the throughput to the carbon beds, weekly records of the styrene concentration measurements, and records of the dates of carbon replacement and regeneration.

**Response to Comment 15:**

As a result of this comment, Condition D.4.6 was changed as shown below. The requirement to maintain records of the throughput to the carbon beds was deleted from the permit because this requirement was inadvertently carried over from a previous draft of the permit. The compliance monitoring requirement for Section D.4 requires that the emission concentration from the activated carbon unit be monitored and when the concentration exceeds 50 ppm, the carbon canister be replaced. Therefore, these two requirements are the only things that needs to be recorded. The throughput to the carbon beds is not necessary to determine compliance with the compliance monitoring condition, Condition D.4.5.

**D.4.6 Record Keeping Requirements**

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- (b) To document compliance with Conditions ~~D.4.1 and~~ D.4.5, the Permittee shall maintain records ~~in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.1.~~

- ~~(1) The throughput to the carbon beds;~~
  - ~~(2) The of the weekly styrene concentration at the carbon canister stack outlet; and~~
  - ~~(3) A a log of the dates of carbon canister replacement and regeneration.~~
- (c) ~~Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

**Comment 16:**

The source requested that the units contained in Section D.5 be broken up into separate D sections as follows: 1) Development and Testing Pultrusion Unit, 2) pneumatic conveying (IPA unloading) and bulk isophthalic acid handling system, and 3) unloading stations. They feel that some of the requirements in the current Section D.5 appear to be applicable to all units when that is not the case.

**Response to Comment 16:**

The Preventive Maintenance Plan (PMP) is required for the Development and Testing Pultrusion unit because it is subject to a VOC and HAP limit to ensure FESOP status. This unit is also subject to the Activated Carbon monitoring condition since the activated carbon unit is used to comply with the VOC and HAP FESOP limit. The Development and Testing Pultrusion unit also has a baghouse, but allowable emissions pursuant to 326 IAC 6-3-2, are very low. Additionally, this unit is not subject to any NESHAP or NSPS and there are no particulate emission limitations that get the Permittee out of a rule. For these reasons, this unit is not subject to Visible Emission Notation, Parametric Monitoring, or Baghouse Inspection conditions.

The pneumatic conveyance system is not subject to the requirements of the PMP, Visible Emissions Notations, Parametric Monitoring, or Baghouse Inspection conditions because it is not subject to a NSPS or NESHAP, there are no particulate emission limitations that get the Permittee out of a rule, the system has a baghouse, and allowable emissions, pursuant to 326 IAC 6-3-2, are very low.

Therefore, as a result of this condition, the PMP requirements were clarified and the Visible Emission Notations, Parametric Monitoring, and Baghouse Inspection conditions were removed.

**D.5.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for ~~this facility~~ **the Development and Testing Pultrusion unit** and its control device

**~~D.5.6 Visible Emissions Notations~~**

- 
- ~~(a) Once per shift visible emission notations of the stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~
  - ~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~
  - ~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~
  - ~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

- ~~(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.~~

~~D.5.7 Parametric Monitoring~~

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~~The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the development and testing pultrusion unit and pneumatic conveyance system, at least once per shift when the unit is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.~~

~~D.5.8 Baghouse Inspections~~

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~~An inspection shall be performed each calendar quarter of all bags controlling the development and testing pultrusion unit and the pneumatic conveying system when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.~~

~~D.5.96 Broken or Failed Bag Detection~~

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~~D.5.107 Activated Carbon~~

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~~D.5.118 Record Keeping Requirements~~

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- ~~(a) To document compliance with Condition D.5.1, the Permittee shall maintain records of styrene monomer resin usage **each month**.~~
- ~~(b) To document compliance with Condition D.5.6, the Permittee shall maintain records of daily visible emission notations of the development and testing pultrusion unit and the pneumatic conveying system stack exhaust.~~
- ~~(c) To document compliance with Condition D.5.7, the Permittee shall maintain the following:~~
- ~~(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:~~
- ~~(A) Inlet and outlet differential static pressure; and~~
- ~~(B) Cleaning cycle operation.~~
- ~~(2) Documentation of the dates vents are redirected.~~
- ~~(d) To document compliance with Condition D.5.8, the Permittee shall maintain records of the results of the inspections required under Condition D.5.8 and the dates the vents are redirected.~~
- ~~(eb) To document compliance with Condition D.5.10, the Permittee shall maintain a log of the following:~~
- ~~(1) The weekly styrene concentration at the carbon canister stack outlet; and~~

- (2) A log of the dates of carbon replacement and regeneration.
- (fc) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.5.429 Reporting Requirements

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**Comment 17:**

The source requested that the words “for polyester resin” be removed from the description of unloading stations since the unloading stations also include other materials other than polyester resin.

**Response to Comment 17:**

The unit descriptions are not federally enforceable permit requirements. They are descriptions to ensure that, when the permit is read, it is clear what the units do. Therefore, “for polyester resin” was not removed, but the permit was altered as follows to be more specific.

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (n) Ten (10) unloading stations **primarily** for polyester resin, described as follows, with fugitive VOC and HAP emissions:

#### SECTION D.5 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-8-4(10)]:**

- (n) Ten (10) unloading stations **primarily** for polyester resin, described as follows, with fugitive VOC and HAP emissions:

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Comment 18:**

The source requested that all throughputs for the unloading stations be removed. They feel that the throughputs are addressed by throughput limitations on the storage tanks or process vessels. The source mentioned that while the listed throughputs are acceptable for their operation, specifying them is unnecessary. The source also requested that the throughputs for the loading stations be removed and replaced with one throughput limitation for the loading stations combined.

**Response to Comment 18:**

No change was made in response to this comment. The process descriptions are not permit limits or requirements. In the facility description section it specifically states “the information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.” The descriptions of the units, as well as the maximum throughputs, are included in the permit in order to ensure that a permit reader can obtain an understanding of what each unit does and to aid in the determination later on if any changes were made to the source.

**Comment 19:**



The source requested that the limit for the Development and Testing Pultrusion unit be reduced from 1578.9 tons per year to 260 tons per year. This will reduce VOC emissions from 1.53 tons per year to 0.25 tons per year.

**Response to Comment 19:**

IDEM has agreed to this change. Additionally, since this limit is less than 25 tons per year, this limit also effectively ensures the development and testing pultrusion unit is not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-3 (Emission Offset). To clarify that Condition D.5.1 effectively ensures that 326 IAC 8-1-6 and 326 IAC 2-3 are not applicable to the development and testing pultrusion unit, the following changes were made:

**D.5.1 FESOP Limitations [326 IAC 2-8] [326 IAC 8-1-6] [326 IAC 2-3]**

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Pursuant to R127-9880-00003 and 326 IAC 2-8 (FESOP), the styrene monomer resin usage for the development and testing pultrusion unit shall be limited to less than ~~1,578.9~~ **160** tons per twelve (12) consecutive month period **with compliance determined at the end of each month**. This limit is equivalent volatile organic compound (VOC) emissions of less than ~~1.53~~ **0.25** tons per year and HAP emissions of less than ~~1.53~~ **0.25** tons per year. The source ~~will be in compliance with this emission limit by using a carbon adsorption unit with~~ **shall maintain** an overall efficiency of 81% **when using the carbon adsorption unit**. This limit is structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program) ~~and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)~~ not applicable. **Since this limit ensures that emissions from the development and testing pultrusion unit are less than twenty-five (25) tons per year, this limit renders the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) and 326 IAC 2-3 (Emission Offset) not applicable.**

**Comment 20:**

The source requested that the requirement to record the static pressure across the IPA baghouse be removed from the permit. They feel that it would be very costly to provide documentation proving this monitoring to place.

**Response to Comment 20:**

The parametric monitoring requirements have been deleted from this section of the permit. Therefore this comment is no longer relevant. See Response to Comment 18 for more information.

**Comment 21:**

The source requested that Condition D.5.2 (Particulate Matter (PM)) be updated to reflect the update in the maximum throughput for the pneumatic conveying system (IPA unloading) and the bulk isophthalic acid handling system.

**Response to Comment 21:**

Condition D.5.2 was updated as follows:

**D.5.2 Particulate Emission Limitations [326 IAC 6-3-2]**

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Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate ~~matter (PM)~~ **emissions** from the listed units shall be limited as follows when operating at the listed process weight rate.

Process	Process Weight Rate (ton/hr)	Limit (lb/hr)
Development and testing pultrusion unit	0.405	2.23
Pneumatic conveying system (IPA unloading)	<del>0.03</del> <b>0.57</b>	<del>0.43</del> <b>2.8</b>
Bulk isophthalic acid handling system	<del>0.03</del> <b>0.57</b>	<del>0.43</del> <b>2.8</b>

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

- Condition D.1.7 (Visible Emissions Notations) was changed to clearly specify that visible emissions notations were only required when firing No. 2 fuel oil.

#### D.1.7 Visible Emissions Notations

- Visible emission notations of the boiler stack exhaust shall be performed once per shift during normal daylight operations ~~when exhausting to the atmosphere~~ **when firing No. 2 fuel oil**. A trained employee shall record whether emissions are normal or abnormal.

- Condition B.15 has been revised as follows to clarify the language about deviation reporting. Additionally, B.15(c) has been removed and incorporated into Condition B.14(h).

#### B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. ~~Deviations that are required to be reported by an applicable requirement~~ **A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit**, shall be reported according to the schedule stated in the applicable requirement and ~~do~~ **does** not need to be included in this report.

~~The notification by the Permittee~~ **Quarterly Deviation and Compliance Monitoring Report** does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit ~~or a rule. It does not include:~~
  - ~~An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or~~
  - ~~Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.~~

~~A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.~~

3. Several conditions were modified by removing language stating that the condition was not federally enforceable. Federal law states that failure to comply with any permit condition issued under a program that has been approved into a State Implementation Plan (SIP) is to be treated as a violation of the SIP (40 CFR 52.23). This has the effect of making all FESOP conditions federally enforceable. Indiana's FESOP program was approved as a part of Indiana's SIP at 40 CFR 52.788. Neither the program nor the underlying rule, 326 IAC 2-8 contains provisions for designating certain conditions as not federally enforceable; therefore, IDEM, OAQ has made the changes to the following conditions:

**C.34** Open Burning [326 IAC 4-1] [IC 13-17-9]

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The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. ~~326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.~~

**C.45** Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. ~~326 IAC 9-1-2 is not federally enforceable.~~

**C.56** Fugitive Dust Emissions [326 IAC 6-4]

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). ~~326 IAC 6-4-2(4) is not federally enforceable.~~

**C.8** Stack Height [326 IAC 1-7]

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. ~~The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.~~

4. Condition C.9 has been revised to clarify that the asbestos notification should be certified by owner or operator, instead of the authorized individual. A rule cite was also corrected.

**C.89** Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

**The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.** The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-41, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
  - (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, **pursuant to the provisions of 40 CFR 61, Subpart M**, is federally enforceable.
5. The QAQ has restructured condition C.17 to clarify the contents and implementation of the Compliance Response Plan. The language regarding the OAQ's direction to excuse failure to perform monitoring under certain conditions has been deleted. The OAQ retains this discretion, and it is not necessary to state criteria regarding the exercise of that discretion in the permit.

**C.4617 Compliance Monitoring Response Plan - Failure to Take Response Steps Preparation, Implementation, Records and Reports** [326 IAC 2-8-4] [326 IAC 2-8-5]

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- (a) The Permittee is required to **prepare** implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
  - (1) ~~This condition;~~
  - (2) ~~The Compliance Determination Requirements in Section D of this permit;~~
  - (3) ~~The Compliance Monitoring Requirements in Section D of this permit;~~

- ~~(4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and~~
- ~~(5) A~~ a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. ~~A~~ CRP's shall be submitted to IDEM, OAQ upon request. ~~and shall be subject to review and approval by IDEM, OAQ.~~ The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, **supplemented from time to time by the Permittee**, and maintained on site, and ~~is~~ comprised of:
- ~~(A)(1)~~ Reasonable response steps that may be implemented in the event that ~~compliance related information indicates that~~ a response step is needed pursuant to the requirements of Section D of this permit; and **an expected timeframe for taking reasonable response steps.**
- ~~(B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.~~
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.**
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition **as follows:** ~~Failure to take reasonable response steps may constitute a violation of the permit.~~
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or**
- (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.**
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.**
- (3) Failure to take reasonable response steps shall constitute a violation of the permit.**
- (c) ~~Upon investigation of a compliance monitoring excursion, the~~ **The** Permittee is ~~excused from taking~~ **not required to take any** further response steps for any of the following reasons:

- (1) A false reading occurs due to the malfunction of the monitoring equipment **and** ~~This shall be an excuse from taking further response steps providing that~~ prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.**
- ~~(d)(e)~~ **(e)** Records ~~shall be kept of all instances in which the compliance related information was not met and of all response steps taken.~~ **The Permittee shall record all instances when response steps are taken.** In the event of an emergency, the provisions of 326 IAC 2-7-16 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- ~~(e)(f)~~ **(f)** **Except as otherwise provided by a rule or provided specifically in Section D,** all monitoring ~~as~~ required in Section D shall be performed ~~at all times when the equipment emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~ If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- ~~(f)~~ At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.
6. The notification sent in response to non-compliance with a stack test now requires a certification by the authorized individual. Therefore, Condition C.18 has been revised as following:

**C.4718** Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do ~~not~~ require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

7. Conditions D.1.7 and D.5.6 have been revised to say Compliance Response Plan - Preparation, Implementation, Records, and Reports rather than Compliance Monitoring Plan - Failure to Take Response Steps. This change reflects the title change of Condition C.17.

**D.1.7 Visible Emissions Notations**

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- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance ~~Monitoring Response Plan - Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

**D.5.6 Broken or Failed Bag Detection**

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance ~~Monitoring Response Plan - Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

8. A.5 Prior Permits Superseded was added to the permit to help clarify the intent of the new rule 326 IAC 2-1.9.5. The Table of Contents was changed to reflect this.

**A.5 ~~Prior Permit Conditions~~**

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- (a) ~~This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.~~
- (b) ~~If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.~~

**A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

9. For clarification purposes, an additional rule citation was included to the title of Condition D.1.4 (Sulfur Dioxide). This change was reflected in the Table of Contents.

**D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 12-1] [40 CFR 60, Subpart Dc]**

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):

10. This source is located in a severe nonattainment area for ozone. Condition A.1 was modified to reflect this.

**A.1 General Information [326 IAC 2-8-3(b)]**

The Permittee owns and operates a stationary polyester and acrylic resin source.

Authorized individual:	Craig Juel
Source Address:	2552 Industrial Drive, Valparaiso, Indiana 46383-9510
Mailing Address:	2552 Industrial Drive, Valparaiso, Indiana 46383-9510
General Source Phone Number:	(219)465-1611
SIC Code:	2821
Source Location Status:	Porter
County Status:	<b>Severe</b> Nonattainment for ozone
	Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP)
	Minor Source, under PSD or Emission Offset Rules;

11. To clarify compliance with the fuel usage limit in Condition D.2.1, the following changes were made:

**D.2.1 Sulfur Dioxide Limitation [326 IAC 2-8]**

Pursuant to F127-5528-00003 and 326 IAC 2-8 (FESOP), the thermal oxidizer and the three (3) boilers listed in Section D.1 of this permit shall be limited to a total of 2788 kgal per twelve (12) consecutive month period of #2 fuel oil **with compliance determined at the end of each month.** This limit is equivalent to sulfur dioxide emissions of ninety-nine (99) tons per twelve (12) consecutive month period. This limit is structured such that when including sulfur dioxide emissions from insignificant activities, the source total sulfur dioxide emissions remain below one hundred (100) tons per year. This renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable.

12. In order to avoid confusion on what "original" date refers to, the following change has been made:

**B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance date of this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.



13. Since B.8 (c) Duty to Supplement and Provide Information already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information, and (c) was updated for clarity.

B.7 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]  
[326 IAC 2-8-5(a)(4)]

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- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-8-4(5)(E)]~~

- (c) **For information furnished by the Permittee to IDEM, OAQ,** the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

14. Condition B.10(c) was revised as follows:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

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- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in ~~condition~~ **Section B**, Emergency Provisions.

15. B.13 Preventive Maintenance Plan has been revised because language appears to be missing.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

**If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:**

**Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015**

**The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-1.1-1(1).**

16. The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from B.15 to B.14. The statement at the end of B.14(b)(4) Emergency Provisions has been removed because it is stated again if (f):

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;
- Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967
- ~~Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~

**(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.**

17. Condition B.18 has been revised to replace “should” with “shall” in Condition B.18(b).

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015
- Any such application ~~should~~ **shall** be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

18. In order to be consistent with 326 IAC 2-8-15(a)(5), the rule cite in B.20(a)(5) has been revised as follows. Condition B.20(b) has also been removed as it is a Part 70 requirement, but no a FESOP requirement.

**B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

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- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d)

- ~~(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

- (eb) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (ec) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required..

19. In Condition B.22(c), the rule cite has been corrected.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-4410(b)(3)]

20. 326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, this rule cite is being added to B.23. Also, the section and phone number of who the Permittee can contact has been corrected in (c).

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]**

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- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233- 0425 **4230**(ask for OAQ, Technical Support and Modeling Section **I/M & Billing Section**), to determine the appropriate permit fee.

21. C.1 has been added to the FESOP. All Section C conditions have been renumbered.

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]**

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- (a) Pursuant to, 40 CFR 52 Subpart P, the allowable particulate emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

22. The following was added to C.11 Compliance Requirements to state what OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements:

**C.4011 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

23. The following changes were made for clarification purposes:

**D.1.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the source total #2 fuel usage **each month**.

**D.4.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.4.1, the Permittee shall maintain records of the styrene monomer production for the storage tanks **each month**.

24. The following changes were made to be consistent with rule language.

**D.1.2 Particulate Matter Emission Limitation (PM) [326 IAC 6-2-2]**

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Pursuant to F127-5528-00003 and 326 IAC 6-2-2 (Particulate Emissions Limitations for Sources of Indirect Heating), the twenty-five (25) million British thermal units per hour natural gas-fired/#2 fuel oil fired boiler and the eighteen (18) million British thermal units per hour natural gas-fired/#2 fuel oil fired hot oil heater are subject to 326 IAC 6-2-2 (Emission Limitations for Facilities Specified in 326 IAC 6-2-1(b)) because they are in Porter County, were constructed prior to 1983 and the oil they heat is used to heat the reactants in the reactors. Pursuant to this rule, the particulate ~~matter~~ **(PM)** emissions from the eighteen (18) million British thermal units per hour boiler shall be limited to 0.55 pounds per million British thermal units heat input. The particulate matter (PM) emissions from the twenty-five (25) million British thermal units per hour boiler shall be limited to 0.48 pounds per million British thermal units heat input.

**D.1.3 Particulate Matter Emission Limitation (PM) [326 IAC 6-2-4]**

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Pursuant to F127-5528-00003 and 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating), the twelve and a half (12.5) million British thermal units per hour natural gas-fired/#2 fuel oil fired boiler is subject to 326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating) because it was constructed after 1983. Pursuant to this rule, the particulate ~~matter~~ **(PM)** from the following units shall be limited to 0.38 pounds per million British thermal units.

**D.5.4 Particulate Matter (PM)**

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In order to comply with D.5.2, the baghouse for **PM particulate** control shall be in operation and control emissions from the development and testing pultrusion unit and the pneumatic conveying system at all times that the facilities are in operation.

**April 8, 2003**

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Federally Enforceable  
Operating Permit (FESOP) Renewal**

**Source Background and Description**

Source Name: AOC, L.L.C.  
Source Location: 2552 Industrial Drive, Valparaiso, Indiana 46383-9510  
County: Porter  
SIC Code: 2821  
Operation Permit No.: F127-13997-00003  
Permit Reviewer: ERG/KC

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from AOC, L.L.C. relating to the operation of a polyester and acrylic resin source. AOC, L.L.C. was issued FESOP F127-5538-00003 on December 13, 1996.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) natural gas fired/#2 fuel oil fired boiler, constructed in 1977, and rated at twenty-five (25) million British thermal units per hour (600 hp);
- (b) One (1) natural gas fired/ #2 fuel oil fired hot oil heater, constructed in 1973, rated at eighteen (18) million British thermal units per hour;
- (c) One (1) natural gas fired/#2 fuel oil fired boiler, constructed in 1990, rated at twelve and five-tenths (12.5) million British thermal units per hour (300 hp);
- (d) Two (2) reactors, identified as reactor No. 1 and No. 2, constructed in 1973 and 1985, respectively, and with a maximum capacity of eight thousand (8,000) and nine thousand (9,000) gallons, respectively, with VOC emissions controlled by an eight (8) million British thermal units per hour thermal oxidizer, constructed in 1977;
- (e) One (1) process styrene emission control system consisting to two (2) activated carbon units in series with continuous styrene emission monitoring. This process styrene emission control system provides control for items (f), (g), (h), and (i);
- (f) Two (2) thinning tanks, identified as thinning tank No. 1 and No. 2, constructed in 1973 and 1985, respectively, both storing polyester resin, with a maximum capacity of sixteen thousand one hundred (16,100) and seventeen thousand seven hundred (17,700) gallons, respectively, and both with VOC emissions controlled by the process styrene emission control system described in (e);

- (g) Six (6) blend tanks, identified as blend tank No.1, No. 2, No. 3, No. 4, No. 5 and No. 6, constructed in 1973, 1973, 1979, 1996, 1999, and 1999 respectively, all storing polyester resin, with a maximum capacity of six thousand (6,000), fifteen thousand (15,000), fifteen thousand (15,000), eight hundred (800) gallons, six thousand (6,000) and six thousand (6,000) respectively, controlled by the process styrene emission control system described in (e);
- (h) One (1) styrene flush tank used to hold and capture styrene and used to flush pipes and process vessels between product runs, venting to the process styrene emission control system described in (e);
- (i) One (1) drum off station and vent, constructed in 1985, which transfers finished products to drums and totes for shipment, with a maximum throughput of eight million one hundred forty-eight thousand (8,148,000) pounds per year, and with VOC emissions controlled by the process styrene emission control system described in (e);
- (j) Two storage tanks styrene emission control systems consisting of one (1) activated carbon unit each. The storage tanks listed below each vent through one of the systems: storage tanks No. 2, 3 6, 8, and 9 vent through the east styrene emission control system; and storage tanks No. 12, 13, 14, 19, 20, and 21 vent through the west styrene emission control system. The following is a description of each storage tank:
  - (1) One (1) tank storing resin, identified as storage tank 2, constructed in 1973, with a maximum capacity of sixteen thousand (16,000) gallons;
  - (2) Two (2) tanks storing resin, identified as storage tank 3 and 6, both constructed in 1973, each with a maximum capacity of thirty thousand (30,000) gallons;
  - (3) Two (2) tanks storing resin, identified as storage tanks 8 and 9, both constructed in 1975, each with a maximum capacity of one hundred and five thousand (105,000) gallons;
  - (4) Three (3) tanks storing resin, identified as storage tanks 12, 13, and 14, constructed in 1979, 1981, and 1981, respectively, each with a maximum capacity of fifty thousand (50,000) gallons;
  - (5) One (1) tank storing styrene, identified as storage tank 19, constructed in 1995, with a maximum capacity of sixty-nine thousand (69,000) gallons; and
  - (6) Two (2) storage tanks for resin, identified as storage tank 20 and 21, both constructed in 1997, each with a maximum capacity of thirty thousand (30,000) gallons.
- (k) One (1) Development and Testing Pultrusion Unit with styrene monomer resin, with a maximum capacity of one hundred eighty (180) fiberglass parts per hour, using one (1) baghouse and carbon adsorption unit for control, exhausting to two (2) stacks (J-280 and J-281), consisting of the following equipment:
  - (1) Mat and roving creels;
  - (2) Wet out station;
  - (3) Die table;

- (4) Control section;
  - (5) Puller section;
  - (6) Automatic cut-off saw;
  - (7) Offload table;
  - (8) Diaphragm pump;
  - (9) Carbons adsorption; and
  - (10) Cyclone dust collector and HEPA filter.
- (l) One (1) pneumatic conveying system (IPA unloading), constructed in 1991, with a maximum throughput of six hundred thousand (600,000) pounds per year, and with particulate emissions controlled by a bag filter (isophthalic unloading system);
- (m) One (1) bulk isophthalic acid handling system, constructed in 1983, with a maximum throughput of six hundred thousand (600,000) pounds per year;
- (n) Ten (10) unloading stations for polyester resin, described as follows, with fugitive VOC and HAP emissions:
- (1) One (1) unloading station, identified as Backpad, constructed in 1990, and relocated/modified in 1999, with a maximum throughput of two million (2,000,000) pounds of glycol per year;
  - (2) One (1) unloading station, identified as Portable pump, constructed in 1983, with a maximum throughput of thirty-three million (33,000,000) pounds per year;
  - (3) One (1) unloading station, identified as Railsiding, constructed in 1978, with a maximum throughput of seventy-three million (73,000,000) pounds of maleic anhydride/dicyclopentadiene per year;
  - (4) One (1) unloading station, identified as Railsiding, constructed in 1997, with a maximum throughput of seventy-three million (73,000,000) pounds of styrene per year;
  - (5) One (1) unloading station, identified as Railsiding, constructed in 1999, with a maximum throughput of seven-three million (73,000,000) pounds of polyester resin per year;
  - (6) One (1) unloading station, identified as Ethylene Glycol/Methyl Propanediol, constructed in 1984, with a maximum throughput of twenty-nine million two hundred thousand (29,200,000) pounds per year;
  - (7) One (1) unloading station, identified as Phthalic Anhydride, constructed in 1987, with a maximum throughput of fourteen million six hundred thousand (14,600,000) pounds per year;
  - (8) One (1) unloading station, identified as Diethylene Glycol/Propylene Glycol, constructed in 1984, with a maximum throughput of twenty-nine million two hundred thousand (29,200,000) pounds per year;

- (9) One (1) unloading station, identified as 1,3 Butylene Glycol at P4, constructed in 1989 (this station has not been in operation for 3 years); and
- (10) One (1) unloading station, identified as Flammable Unloading of Polyester Resin, constructed in 1984, with a maximum throughput of forty-three million eight hundred thousand (43,800,000) pounds per year;
- (o) Three (3) loading stations for polyester resin, described as follows, with fugitive VOC and HAP emissions:
  - (1) One (1) loading station, identified as Tanker Bays 1 and 2, constructed in 1984, with a maximum throughput of sixty-five million (65,000,000) pounds per year;
  - (2) One (1) loading station, identified as Tanker Bays 3 and 4, constructed in 1984, with a maximum throughput of sixty-five million (65,000,000) pounds per year; and
  - (3) One (1) loading station, identified as Tanker Bays 5 and 6, constructed in 2000, with a maximum throughput of sixty-five million (65,000,000) pounds per year.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this renewal review process.

#### **New Emission Units and Pollution Control Equipment Receiving New Source Review Approval**

There are no new emission units and pollution control equipment receiving new source review approval during this renewal review process.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Emission units with PM and PM10 emissions less than five (5) tons per year, SO<sub>2</sub>, NO<sub>x</sub>, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, and lead emissions less than two-tenths (0.2) tons per year:
  - (1) One (1) tank storing phthalic anhydride, identified as storage tank 1, constructed in 1973, with a maximum capacity of sixteen thousand (16,000) gallons;
  - (2) One (1) tank storing maleic anhydride, identified as storage tank 16, constructed in 1986, with a maximum capacity of forty thousand (40,000) gallons;
  - (3) Two (2) tanks storing DCPD, identified as storage tanks 4 and 7, constructed in 1973 and 1981, respectively, each with a maximum capacity of thirty thousand (30,000) gallons, and each controlled by an activated carbon conservation vent;
  - (4) Five (5) tanks storing glycol, identified as storage tank 5, 10, 11, 17, and 18, constructed in 1974, 1976, 1975, 1976, and 1977, respectively, and each with a maximum capacity of thirty thousand (50,000) gallons;
  - (5) One (1) 6,000 gallon distillate hold tank and one (1) 500 gallon aqueous ammonium storage tank used to hold and neutralize process wastewater prior to incineration;



- (6) One (1) 3,200 gallon glycol boil tank;
- (7) Piping fugitives;
- (8) Inhibitor room;
- (9) Seven (7) lab vents, one (1) IPA surge vent, and one (1) maintenance building vent;
- (10) Two (2) fume hoods;
- (11) Acrylic bead blower exhaust;
- (12) Waste oil tank vent;
- (13) Fumed silica;
- (14) Turbine agitator;
- (15) Sonic mixer;
- (16) Positive displacement charge pump; and
- (17) Positive displacement transfer pump with high pressure shut off switch;
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons:
  - (1) Two (2) gasoline storage tanks, each with a maximum capacity of 250 gallons;
- (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month:
  - (1) Diesel generator for boilers;
  - (2) Diesel (backup) generator for the process;
- (d) Diesel generators not exceeding 1600 horsepower;
- (e) Natural gas-fired combustion source with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
  - (1) Eight (8) furnaces;
- (f) Noncontact cooling tower systems with either of the following:
  - (1) Forced and induced draft cooling tower system not regulated under a NESHAP; and
- (g) Stationary fire pumps:
  - (1) Diesel fire pump.

## Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (1) AF127-12645-00003, issued on September 20, 2000;
- (2) AF127-11001-00003, issued on August 11, 1999;
- (3) MMF127-10250-0003, issued on August 10, 1999;
- (4) AF127-9908-00003, issued on March 11, 1999;
- (5) R127-9880-00003, issued on August 13, 1998;
- (6) MMF127-8856-00003, issued on December 3, 1997; and
- (7) F127-5538-0003, issued on December 13, 1996, expiring on December 13, 2001.

All conditions from previous approvals were incorporated into this FESOP, except:

Condition not included: Condition D.2.2 from F127-5538-00003 compliance stack tests shall be performed 24 to 36 months for the issuing of this permit on the 8 million British thermal units per hour thermal oxidizer for VOC and styrene. The tests shall be performed using an approved OAM method.

Reason not included: VOC testing was included in this permit, but styrene testing was not. No styrene enters the reactors and therefore no styrene enters the thermal oxidizer.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 1, 2001.

### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (page 1 through 15). All emissions and emission calculations were taken from the original FESOP (F137-5538-00003) and 127-9880-0003.

### **Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	11.12

PM-10	5.51
SO <sub>2</sub>	141.5
VOC	30.33
CO	39.45
NO <sub>x</sub>	50.51

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAPs	Unrestricted Potential Emissions (tons/yr)
Styrene	26.5
Methanol	0.47
MMA	0.12
Xylene	0.04
Dimethylaniline	0.35
Acrylic Acid	0.03
Phthalic Anhydride	0.46
Ethylene Glycol	0.004
Maleic Anhydride	0.67
Benzene	5.106x10 <sup>-4</sup>
Dichlorobenzene	2.917x10 <sup>-4</sup>
Formaldehyde	0.018
Hexane	0.44
Toluene	8.266x10 <sup>-4</sup>
Lead	2.31x10 <sup>-3</sup>
Cadmium	9.975x10 <sup>-4</sup>
Chromium	1.07x10 <sup>-3</sup>
Manganese	1.55x10 <sup>-3</sup>
Nickel	1.24x10 <sup>-3</sup>
Arsenic	9.72x10 <sup>-4</sup>
Beryllium	7.3x10 <sup>-4</sup>
Mercury	7.3x10 <sup>-4</sup>
Selenium	3.64x10 <sup>-3</sup>
TOTAL	29.3

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of SO<sub>2</sub> is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict PTE to below Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP). This source has chosen to limit the emissions of SO<sub>2</sub> to less than one hundred (100) tons per twelve (12) consecutive month period, the emissions of

single HAPs to below ten (10) tons per twelve (12) consecutive month period, and the emissions of any combination of HAPs to below twenty-five (25) tons per twelve (12) consecutive month period. This limitation will render the requirements of 326 IAC 2-7 not applicable.

(d) Fugitive Emissions

Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

**Potential to Emit After Issuance**

The source, issued a FESOP on December 13, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F127-5538-00003 issued on December 13, 1996).

Process/ Emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Total HAPs
Reactors	0.08	0.08	0	Less than 1.68	17	6.91	Less than 1.68
Combustion	4	4	Less than 99	1.4	21.7	39.7	--
Thinning Tanks	0	0	0	Less than 0.48	0	0	Less than 0.48
Blend Tanks	0	0	0	Less than 0.24	0	0	Less than 0.24
Storage Tanks	0	0	0	Less than 0.67	0	0	Less than 0.67
Drum-Off Tank	0	0	0	Less than 0.12	0	0	Less than 0.12
Development and Testing Pultrusion Unit	2.23	0	0	Less than 1.53	0	0	Less than 1.53
Fugitive Emissions	0	0	0	15.27	0	0	4.4

Process/ Emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Total HAPs
Total Insignificant Activities	7.04	1.43	0.4	0.36	0.75	3.9	--
Total PTE After Issuance	13.35	5.51	Less than 100	Less than 25	39.45	50.51	Less than 10 for a single HAP Less than 25 for a combination of HAPs

### County Attainment Status

The source is located in Porter County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Severe Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Porter County has been designated as severe nonattainment for ozone.
- (b) Porter County has been classified as attainment or unclassifiable for PM10, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Federal Rule Applicability

- (a) The natural gas fired/#2 fuel oil fired boiler rated at twelve and five-tenths (12.5) million British thermal units per hour (300 hp) is subject to the New Source Performance Standard, 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) because it was constructed after 1989 and has a maximum capacity of greater than ten (10) million British thermal units per hour. Pursuant to this rule, the following limitations apply:
  - (1) The SO<sub>2</sub> emissions from the boiler shall not exceed five tenths (0.5) pounds per million Btu heat input; or
  - (2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

This rule does not apply to the natural gas-fired/#2 fuel oil fired boiler rated at twenty-five (25) million British thermal units per hour because it was constructed before the applicability date of this rule. This rule does not apply to the natural gas fired/#2 fuel oil fired hot oil heater rated at eighteen (18) million British thermal units per hour because it is not a steam generator as described by the rule.

- (b) Storage tank 16, 19, 20, and 21 are subject to the New Source Performance Standard, 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Constructed, Reconstruction, or Modification Commenced After July 23, 1984) because they were all constructed after 1984 and have a maximum capacity greater than forty (40) cubic meters. However only 40 CFR 60.116b(a), (b), and (d) are applicable because: tank 16 and 19 have capacities greater than 151 cubic meters and stores liquids with a vapor pressure less than 3.5 kPa; and tank 20 and 21 have capacities between 75 and 151 cubic meters and store liquids with vapor pressures less than 15 kPa. Pursuant to 40 CFR 60.116b (a) and (b), the owner and operator shall maintain records of the tanks' dimensions and an analysis showing the capacity of the storage tanks. Pursuant to 40 CFR 60.116b(d), the owner or operator of tank 16 and 19 shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 5.2 kPa and the owner or operator of tank 20 and 21 shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 27.6 kPa. 40 CFR 60, Subpart Kb does not apply to the remaining tanks at the source for the following reasons:

Tank	Reason Not Applicable
Storage tanks 1, 3, 4 and 6	Constructed in 1973 which is before the applicability date of the rule
Storage tank 12	Constructed in 1979 which is before the applicability date of the rule
Storage tanks 7, 13 and 14	Constructed in 1981 which is before the applicability date of the rule
Storage tanks 8, 9, and 11	Constructed in 1975 which is before the applicability date of the rule
Storage tank 2	Constructed in 1973 which is before the applicability date of the rule
Storage tank 5	Constructed in 1974 which is before the applicability date of the rule
Storage tank 10 and 17	Constructed in 1976 which is before the applicability date of the rule
Storage tank 18	Constructed in 1977 which is before the applicability date of the rule
Distillate hold tank and ammonium storage tank	Capacity less than 40 cubic meters

- (c) 40 CFR 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971) does not apply to the natural gas fired/#2 fuel oil fired boiler rated at twenty-five (25) million British thermal units per hour (600 hp) even though it was constructed after 1971 because this rule only applies to units with a heat input rate of two hundred fifty (250) million British thermal units per hour. This rule does not apply to the natural gas fired/#2 fuel oil fired hot oil heater rated at eighteen (18) million British thermal units per hour because it is not a steam generating unit as described in the rule.
- (d) 40 CFR 60, Subpart Da (Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978) is not applicable to this source because no electric utility steam generating units exist at the source.
- (e) 40 CFR 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) does not apply to this source because no steam generating unit at the source has a capacity greater than one hundred (100) million British thermal units per hour.

- (f) 40 CFR 60, Subpart DDD (Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry) does not apply to this source because this source does not manufacture polypropylene, polyethylene, polystyrene, or poly (ethylene terephthalate). This source manufactures polyester and acrylic resin.
- (g) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 14, and 40 CFR Part 63 applicable to this source. 40 CFR 63, Subpart JJJ (National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins) does not apply because this source is not a major source since it has accepted limits on HAP emissions.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-4.1-1 (New Sources of Hazardous Air Pollutants)**

326 IAC 2-4.1-1 (New Sources of Hazardous Air Pollutants) does not apply to this source because the source is limiting HAP emissions to less than ten (10) tons per year for a single HAP and twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is not major for hazardous air pollutants.

##### **326 IAC 2-6 (Emission Reporting)**

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NOx and VOC and is in Porter County. Pursuant to this rule, the owner/operator of the source must submit an emission statement for the source. The statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6 and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

##### **326 IAC 2-8 (FESOP)**

- (a) Pursuant to 326 IAC 2-8 (FESOP), AF127-11001-00003, and F127-5538-00003, the following VOC and HAP limitations apply:
  - (1) The raw material input to the two (2) reactors shall be limited to less than 4,167 tons per twelve (12) consecutive month period. This limit is equivalent to total volatile organic compound (VOC) emissions from the two (2) reactors of less than 1.68 tons per year and the total HAP emissions from the two (2) reactors of less than 1.68 tons per year. The source will be in compliance with this limit by controlling emissions with an incinerator with an efficiency of 99.9%.
  - (2) The styrene monomer resin production for the thinning tanks shall be limited to less than 125,821 tons per twelve (12) consecutive month period. This limit is equivalent to total volatile organic compound (VOC) emissions from the two (2) thinning tanks of less than 0.48 tons per year and total HAP emissions from the two (2) thinning tanks of less than 0.48 tons per year. The source shall be in compliance with the limit by using two carbon adsorption units in series, one with an overall efficiency of 90.25% and the other with an overall efficiency of 92%.
  - (3) The styrene monomer resin production for the blend tanks and flush tank shall be limited to less than 62,911 tons per twelve (12) consecutive month period. This limit is equivalent to total volatile organic compound (VOC) emissions from all six (6) blend tanks and one (1) flush tank of less than 0.24 tons per year and total HAP emissions from all six (6) blend tanks and one (1) flush tank of less than 0.24 tons per year. The source will be in compliance with this limit by using two carbon adsorption units in series, one with an overall efficiency of 90.25% and the other with an overall efficiency of 92%.

- (4) The drum off vent throughput shall be limited to less than 6,015 kilogallons per twelve (12) consecutive month period. This limit is equivalent to total volatile organic compound (VOC) emissions from the drum off vent of less than 0.12 tons per year and the total HAP emissions from the drum off vent of less than 0.12 tons per year. The source shall be in compliance with this limit by using a carbon adsorption unit with an efficiency of 90%.
- (5) The styrene monomer resin production for the storage tanks shall be limited to less than 155,935 tons per twelve (12) consecutive month period. This limit is equivalent to total volatile organic compound (VOC) emissions from the storage tanks of less than 0.672 tons per year and the total HAP emissions from the storage tanks of less than 0.672 tons per year. The source will be in compliance with this limit by controlling emissions with an activated carbon conservation vent with an overall efficiency of 90.25%.
- (6) The styrene monomer resin usage for the development and testing pultrusion unit shall be limited to less than 1578.9 tons per twelve (12) consecutive month period. This limit is equivalent volatile organic compound (VOC) emissions of less than 1.53 tons per year and HAP emissions of less than 1.53 tons per year. The source will be in compliance with this emission limit by using a carbon adsorption unit with an overall efficiency of 81%.

These limits are structured such that when including VOC and HAP emissions from other units at the source, the source total VOC emissions remain below twenty-five (25) tons per twelve (12) consecutive month period, the source total single HAP emissions remain below ten (10) tons per twelve (12) consecutive month period, and the source total combination HAP emissions remain below twenty-five (25) tons per twelve consecutive month period. This limit renders 326 IAC 2-7 (Part 70 Permit Program not applicable).

- (b) Pursuant to 326 IAC 2-8 (FESOP) and F127-5528-00003, the thermal oxidizer and the three (3) boilers shall be limited to a total of 2788 kgal per twelve (12) consecutive month period of #2 fuel oil. This limit is equivalent to sulfur dioxide emissions of ninety-nine (99) tons per twelve (12) consecutive month period. This limit is structured such that when including sulfur dioxide emissions from insignificant activities, the source total sulfur dioxide emissions remain below one hundred (100) tons per year. This renders the requirements of 326 IAC 2-7 (Part 70 Permit Program) not applicable

#### 326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-6 (Source Specific and Facility Emission Limitations for TSP in Porter County)

326 IAC 6-6 (Source Specific and Facility Emission Limitations for TSP in Porter County) does not apply to this source because AOC is not one of the specifically listed sources in the rule.



326 IAC 7-4-14 (Porter County Sulfur Dioxide Emission Limitations)

326 IAC 7-4-14 (Porter County Sulfur Dioxide Emission Limitations) does not apply to this source because AOC is not one of the specifically listed sources in the rule.

326 IAC 8-1-6 (New Facilities General Reduction Requirements)

326 IAC 8-1-6 (New Facilities General Reduction Requirements) does not apply to the following units, all constructed after 1980, the applicability date of this rule:

- (a) Reactor No. 2;
- (b) Thinning tank No. 2;
- (c) Blend tank No. 4;
- (d) Blend tanks No. 5 and 6;
- (e) Drum off station and vent;
- (f) Storage tanks 20 and 21;
- (g) Storage tanks 13 and 14;
- (h) Storage tank 19; and
- (i) Development and testing pultrusion unit;

because none of these units emit greater than twenty-five (25) tons per year of VOC. The FESOP limits ensure that these units do not emit greater than twenty-five (25) tons in the future. This rule does not apply to the remaining units at the source because they were constructed prior to the applicability date of the rule.

326 IAC 8-6 (Organic Solvent Emission Limitations)

326 IAC 8-6 (Organic Solvent Emission Limitations) does not apply to this source even though some units were constructed after October 7, 1974 and prior to January 1, 1980 because this source does not have the potential to emit greater than one hundred (100) tons per year of VOC.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) does not apply to any facility at this source because the source is limiting VOC emissions to less than twenty-five (25) tons per year and therefore no individual facility has the potential to emit greater than twenty-five (25) tons per year.

**State Rule Applicability-Reactors**

326 IAC 8-1-6 (New Facilities General Reduction Requirements)

326 IAC 8-1-6 (New Facilities General Reduction Requirements) does not apply to the reactor constructed in 1973 because it was constructed prior to 1980, the applicability date of this rule. This rule does not apply to the reactor constructed in 1985 because the FESOP limit ensures that it does not emit greater than twenty-five (25) tons per year of VOC.

326 IAC 8-6 (Organic Solvent Emission Limitations)

326 IAC 8-6 (Organic Solvent Emission Limitations) does not apply to reactor No.1 or No. 2 because they were not constructed after October 7, 1974 and prior to January 1, 1980 and they do not have the potential to emit greater than one hundred (100) tons per year of VOC.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)  
326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)  
does not apply to either of the reactors because the FESOP limit ensures that they do not emit greater than twenty-five (25) tons per year of VOC.

### State Rule Applicability - Boilers

326 IAC 6-2-2 (Emission Limitations for Sources of Indirect Heating)  
The twenty-five (25) million British thermal units per hour natural gas-fired/#2 fuel oil fired boiler and the eighteen (18) million British thermal units per hour natural gas-fired/#2 fuel oil fired hot oil heater are subject to 326 IAC 6-2-2 (Emission Limitations for Facilities Specified in 326 IAC 6-2-1(b)) because they are in Porter County, were constructed prior to 1983, and the oil they heat is used to heat the reactants in the reactors. Pursuant to this rule, the particulate matter (PM) from the following units shall be limited as follows:

Construction Year	Unit	Q (MMBtu/hr)	Limit (Pt; lb/MMBtu)
1973	18 million British thermal units	18	0.55
1977	25 million British thermal units	18 + 25 = 43	0.48

These limits were calculated using the following equation:

$$Pt = \frac{0.87}{Q^{0.16}}$$

where Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)  
Q = Total source maximum operating capacity (MMBtu/hr)

326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating)  
The twelve and a half (12.5) million British thermal units per hour natural gas-fired/#2 fuel oil fired boiler is subject to 326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating) because it was constructed after 1983. Pursuant to this rule, the particulate matter (PM) from the following units shall be limited to 0.38 pounds per million British thermal units. This limitation was calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} = \frac{1.09}{55.5^{0.26}} = 0.38 \text{ lb/MMBtu}$$

where Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)  
Q = Total source maximum operating capacity  
(Q = 18 + 25 + 12.5 = 55.5 MMBtu/hr)

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)  
The twelve and a half (12.5) million, twenty-five (25) million, and eighteen (18) million British thermal units per hour natural gas-fired/#2 fuel oil fired boilers are all subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations) because they have the potential to emit greater than twenty-five (25) tons per year of sulfur dioxide. Pursuant to this rule, the sulfur dioxide emissions from the units shall be limited to less than five-tenths (0.5) pound per million British thermal units.

### State Rule Applicability - Storage Tanks

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

- (a) Storage tank 2, 3, 6, 8, 9, 12, 13, and 14 are subject to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) because they store volatile organic liquid and are in Porter County. No specific limitations or standards apply to these tanks because they all store liquids with maximum true vapor pressures less than 0.75 psia. Only recordkeeping and reporting requirements apply.
- (b) Storage tank 19, 20, and 21 are not subject to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) because they are subject to 40 CFR 60, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Constructed, Reconstruction, or Modification Commenced After July 23, 1984).

**State Rule Applicability - Development and Testing Pultrusion Unit, Pneumatic Conveying System, and Bulk Isophthalic Acid Handling System**

**326 IAC 6-3-2 (Process Operations)**

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the listed facilities shall be limited as follows when operating at the listed process weight rate.

Process	Process Weight Rate (ton/hr)	Limit (lb/hr)
Development and testing pultrusion unit	0.405	2.23
Pneumatic conveying system (IPA unloading)	0.03	0.43
Bulk isophthalic acid handling system	0.03	0.43

These limits were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**State Rule Applicability - Insignificant Storage Tanks**

**326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)**

- (a) Storage tank 1, 4, 5, 7, 10, 11, 17, 18, the distillate hold tank, and the ammonium storage tank are subject to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) because they store volatile organic liquid and are in Porter County. No specific limitations or standards apply to these tanks because they all store liquids with maximum true vapor pressures less than 0.75 psia. Only recordkeeping and reporting requirements apply.
- (b) Storage tank 16 is not subject to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) because it is subject to 40 CFR 60, Subpart Kb.

**Testing Requirements**

VOC testing was required for the thermal oxidizer in F127-5538-00003, issued on December 13, 1996, and will be required in this FESOP also. The previous test was performed on October 21-22, 1999. By April 22, 2005, the Permittee shall perform the next VOC test. Styrene testing is not required because no styrene enters the thermal oxidizer.

## Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP. The source is also subject to the following compliance monitoring requirements:

1. The boilers have applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the boiler stacks' exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
2. The reactors controlled by the thermal oxidizer have applicable compliance monitoring conditions as specified below:
  - (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to

the temperature used to demonstrate compliance during the most recent compliance stack test.

- (b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizer is in operation. This pressure or amperage shall be maintained with the range as established in must recent compliant stack test.
  - (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading.
- 3. The thinning tanks, blend tanks, styrene flush tank, and drum off station and vent have applicable compliance monitoring conditions as specified below:
  - (a) Activated carbon canisters shall be used at all times to control styrene emissions. A continuous air monitor shall be used to read the styrene concentration at the outlet of the activated carbon units. When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by set of carbon canisters shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service.
- 4. The storage tanks have applicable compliance monitoring conditions as specified below:
  - (a) An activated carbon canister shall be used at all times to control styrene emissions. Emission concentrations for each activated carbon unit shall be measured weekly by a draeger tube or a flame ionization detector. When styrene concentrations are in excess of 50 parts per million (ppm) a stand-by set of carbon canisters shall be placed into service and the spent carbon canisters shall be removed, regenerated, and placed into stand-by service.
- 5. The development and testing pultrusion unit and pneumatic conveying system have applicable compliance monitoring conditions as specified below:
  - (a) Once per shift visible emissions notations of the stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
  - (b) The Permittee shall record the total static pressure drop across the baghouses controlling the systems, at least once per shift when the systems are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

- (c) An activated carbon canister shall be used at all times to control styrene emissions. Emission concentrations for each activated carbon unit shall be measured weekly by a draeger tube or a flame ionization detector. When styrene concentrations are in excess of 50 parts per million (ppm) stand-by carbon canisters shall be placed into service and the spent carbon shall be removed, regenerated, and placed into stand-by service.

These monitoring conditions are necessary because the thermal oxidizer, carbon adsorption unit, activated carbon conservation vents, activated carbon units, and the baghouses for the various processes must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

## **Conclusion**

The operation of this polyester and acrylic resin source shall be subject to the conditions of the attached proposed FESOP No.: F127-13997-00003.

**Appendix A: Emissions Calculations**

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**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: AOC, L.L.C.****Address City IN Zip: 2552 Industrial Drive, Valparaiso, Indiana 46383****Permit Number: 127-13997-00003****Plt ID: 127-00003****Reviewer: ERG/KC****Date: 37071**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

55.5

486.18

## Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	1.85	1.85	0.15	24.31	1.34	20.42

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

## Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: Emissions Calculations**

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**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: AOC, L.L.C.****Address City IN Zip: 2552 Industrial Drive, Valparaiso, Indiana 46383****Permit Number: 127-13997-00003****Plt ID: 127-00003****Reviewer: ERG/KC****Date: 37071****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 0.0021	Dichlorobenzene 0.0012	Formaldehyde 0.075	Hexane 1.8	Toluene 0.0034
Potential Emission in tons/yr	5.10E-04	2.92E-04	1.82E-02	4.38E-01	8.27E-04

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.00038	Nickel 0.0021
Potential Emission in tons/yr	1.22E-04	2.67E-04	3.40E-04	9.24E-05	5.10E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#1 and #2 Fuel Oil**

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**Company Name:** AOC, L.L.C.  
**Address City IN Zip:** 2552 Industrial Drive, Valparaiso, Indiana 46383  
**Permit Number:** 127-13997-00003  
**Plt ID:** 127-00003  
**Reviewer:** ERG/KC  
**Date:** 37071

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur 0.5
63.5	3973.286	

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2	71 (142.0S)	20	0.34	5
Potential Emission in tons/yr	3.97	141.05	39.73	0.68	9.93

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#1 and #2 Fuel Oil**

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**Company Name:** AOC, L.L.C.  
**Address City IN Zip:** 2552 Industrial Drive, Valparaiso, Indiana 46383  
**Permit Number:** 127-13997-00003  
**Plt ID:** 127-00003  
**Reviewer:** ERG/KC  
**Date:** 37071

HAPs - Metals

Emission Factor in lb/mmBtu	Arsenic 4.00E-06	Beryllium 3.00E-06	Cadmium 3.00E-06	Chromium 3.00E-06	Lead 9.00E-06
Potential Emission in tons/yr	7.95E-06	5.96E-06	5.96E-06	5.96E-06	1.79E-05

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury 3.00E-06	Manganese 6.00E-06	Nickel 3.00E-06	Selenium 1.50E-05
Potential Emission in tons/yr	5.96E-06	1.19E-05	5.96E-06	2.98E-05

**Methodology**

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations**  
**Company Name:** AOC, L.L.C.  
**Address City IN Zip:** 2552 Industrial Drive, Valparaiso, Indiana 46383  
**Permit Number:** 127-13997-00003  
**Plt ID:** 127-00003  
**Reviewer:** ERG/KC  
**Date:** 37071

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Emission Calculations from 127-9880-00003

Percent Styrene by weight in resin: 34%  
Density of resin: 9.2 lb/gal  
Usage of resin: 0.196 gal/part  
Maximum production capacity: 180 parts/hr  
Emission Factor\*: 1.5% styrene content by weight in resin  
\*Emission factor from Society of Plastics Industry, Incl. "PIC Emissions Study Report"

$$\begin{aligned} 9.2 \text{ lb/gal} * 0.196 \text{ gal resin/part} * 180 \text{ parts/hr} * 0.34 \text{ lb styrene/lb resin} * 0.015 \text{ lb styrene emitted/lb styrene} &= \\ &= 1.65 \text{ lb styrene/hr} \\ &= 7.25 \text{ ton styrene/yr} \end{aligned}$$

Capture efficiency of carbon adsorption unit: 90%  
Control efficiency of carbon adsorption unit: 90%  
Overall efficiency of carbon adsorption unit:  $90\% * 90\% = 81\%$

$$\text{Styrene emissions after control} = 7.25 \text{ ton/yr} * (1 - 81\%) = 1.38 \text{ ton/yr}$$

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**Limits**

*Testing and Pultrusion Unit*

$$\begin{aligned} (1.53 \text{ ton sty emit/hr}) * (\text{lb resin}/0.34 \text{ lb sty}) * (\text{lb sty}/0.015 \text{ lb sty emit}) * (1/(1-.81)) * \\ (2000 \text{ lb sty emit/ton sty emit}) * (\text{ton resin}/2000 \text{ lb resin}) = 1578.9 \text{ ton resin/yr} \end{aligned}$$

*Blend Tanks*

$$\begin{aligned} (0.24 \text{ ton sty emit/yr}) * (\text{lb resin prod}/4.24\text{E-}5 \text{ lb sty emit}) * (1/[(0.57*(1-.9025))+(.43*(1-.92))]) * \\ (2000 \text{ lb sty emit/ton sty emit}) * (\text{ton resin}/2000 \text{ lb resin}) = 62,911 \text{ ton resin prod/yr} \end{aligned}$$

*Thinning Tanks*

$$\begin{aligned} (0.48 \text{ ton sty emit/yr}) * (\text{lb resin prod}/4.24\text{E-}5 \text{ lb sty emit}) * (1/[(0.57*(1-.9025))+(.43*(1-.92))]) * \\ (2000 \text{ lb sty emit/ton sty emit}) * (\text{ton resin}/2000 \text{ lb resin}) = 125,821 \text{ ton resin prod/yr} \end{aligned}$$

*Drum Off Vent*

$$\begin{aligned} (0.12 \text{ ton sty emit/yr}) * (\text{kgal}/0.399 \text{ lb sty emit}) * (1/(1-.90)) * \\ (2000 \text{ lb sty emit/ton sty emit}) = 6015 \text{ kgal/yr} \end{aligned}$$

*Storage Tanks*

$$\begin{aligned} (0.672 \text{ ton sty emit/yr}) * (\text{lb resin prod}/4.42\text{E-}5 \text{ lb sty emit}) * (1/(1-.9025)) * \\ (2000 \text{ lb sty emit/ton sty emit}) * (\text{ton resin}/2000 \text{ lb resin}) = 155,935 \text{ ton resin prod/yr} \end{aligned}$$

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*Reactor Emissions*

$$\begin{aligned} (50,000 \text{ ton/yr}) * (.08 \text{ (yeild loss)}) * (.1 \text{ (vapor)}) * (.2 \text{ (VOC content)}) &= 80 \text{ tpy} \\ (80 \text{ ton/yr}) * (1-0.999 \text{ (control efficiency)}) &= 0.08 \text{ ton/yr} \end{aligned}$$